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METHOD OF DETECTING TOXIC SUBSTANCE

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	TAKAHASHI JUNKO (JP)	
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Abstract of **WO03018791**

A method of detecting a toxic substance by a biological procedure. Namely, a toxic substance is detected by assaying mRNA corresponding to a gene expressed from cells containing the gene sele from the group consisting of the following yeast gene and genes with various origins homologous t yeast gene.

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Description of corresponding document: **EP1426438**

FILED OF THE INVENTION

[0001] This invention relates to biology-based processes for detecting toxic substances, and specifi processes for detecting toxic substances which comprises detecting mRNA that is transcribed in the presence of test materials by a particular gene from yeast.

BACKGROUND ART

[0002] Environmental chemical fate search has been conducted every year for 24 years from 1974 th
1998 by Environment Agency, and revealed that about 40% of 775 chemical substances that have be
searched so far are emitted into the environment. Chemical substances that are industrially produced
present in Japan are estimated about 50,000, and the production scale and the kinds of chemical subs
are increasing year by year. It is known that chemical substances that are accidentally produced by v
treatment with chlorine and incineration pollute the environment. Although such facts allow us to pr
that there are a large number of chemical substances that have been accumulated in the environment
extremely difficult to search and examine individually the all chemical substances.

[0003] Conventional bioassays (approaches to evaluate the harmful effects on biological materials o:
basis of their responses) wherein inhibited growth and particular biological responses in individuals
cells of fishes, daphnia and shellfish are used as indicators make it possible to determine the presenc
absence of the toxicity of chemical substances in the environment, but neither possible to evaluate th
characters nor origins of the toxicity. The evaluation methods based on the activity of nitrite-formin
bacteria or nitrate-forming bacteria (Japanese Patent Publication (kokai) No. 123705/1994, Japanese
Publication (kokai) No. 2000-206087) and the activity of iron bacteria have been proposed, and devi
such as Acute toxiciants monitor (Fuji Electric Corporate Research and Development, Ltd. Japan) ar
marketed in Japan. In foreign countries, the devices for evaluation based on emission intensity of lur
bacteria are commercially available (MICROTOX, azur, Co., USA; LUMIS, drlange, Co. Germany)
However, those devices still involve conventional bioassays, and never provide any detailed informa
toxic chemical substances.

[0004] In Japan, the risk control of chemical substances is reconsidered every time a chemical subst:
pollution is newly found, and official regulations and self-imposed regulations are combined to orga
the system for risk control. However, any system has not been yet organized that could quickly resp
the present complicated and diversified conditions including accidental productions and environmen
emission of toxic chemical substance as typified by trihalomethane and dioxin. Animal experiments
used in the method for evaluation of toxic substance of "Law Concerning Examination and Manufac
etc. of Chemical Substances" are expensive and time-consuming, and are not accepted across the wo
Although, as such, the control system has been continuously discussed, it has not been successfully
accomplished because there is no way to dissolve the problem. Thus, a method for detect readily che
substances occurring in the environment is desired.

DISCLOSURE OF THE INVENTION

[0005] The inventors of the present application found that a toxic substance induces the expression c
mRNA from particular yeast genes, and accomplished the present invention.

[0006] Specifically, the invention of the present application relates a process for detecting a toxic
substance, which comprises detecting mRNA that is expressed in the presence of a test material by a
comprising a yeast gene that is selected from a group consisting of the following, or a gene that is
homologous to the yeast genes and is derived from other species, wherein the mRNA corresponds to
yeast gene or said homologous gene thereof:
YBR072W, YCR102C, YCR107W, YDL218W, YDL243C, YDR453C, YDR533C, YFL014W,
YFL056C, YFL057C, YGR110W, YJR155W, YKL071W, YKR076W, YLL060C, YLR460C,
YMR090W, YNL331C, YNL332W, YNL335W, YOL150C, YOL165C, YPL171C, YPR167C,
YBL048W, YBL064C, YBL107C, YBR008C, YBR173C, YBR256C, YBR296C, YDL021W, YFL·
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YER100W, YER162C, YER182W, YFL021W, YFL042C, YFR045W, YFR051C, YFR056C, YGL
YGL041C, YGL045W, YGL057C, YGL093W, YGL105W, YGL125W, YGL166W, YGL181W,
YGL183C, YGL215W, YGL216W, YGL221C, YGL223C, YGR007W, YGR029W, YGR155W,
YGR156W, YGR186W, YGR198W, YGR210C, YGR211W, YGR237C, YGR250C, YGR258C,
YGR266W, YGR270W, YGR274C, YGR277C, YHL021C, YHL037C, YHL038C, YHR082C,
YHR083W, YHR134W, YHR160C, YHR171W, YHR180W, YHR205W, YIL062C, YIL072W,
YIL075C, YIL099W, YIL108W, YIL165C, YIL170W, YIR009W, YIR018W, YIR031C, YIR032C
YJL032W, YJL049W, YJL128C, YJL165C, YJR044C, YJR052W, YJR090C, YJR091C, YJR103\
YJR104C, YJR153W, YKL059C, YKL079W, YKL090W, YKL094W, YKL192C, YKL209C, YKF
YKR102W, YKR106W, YLL054C, YLR025W, YLR097C, YLR200W, YLR226W, YLR248W,
YLR266C, YLR392C, YLR427W, YML013W, YML029W, YML041C, YML051W, YML078W,
YML079W, YML088W, YML099C, YMR056C, YMR068W, YMR091C, YMR110C, YMR160W,
YMR186W, YMR255W, YNL005C, YNL026W, YNL039W, YNL063W, YNL064C, YNL077W,
YNL083W, YNL147W, YNL176C, YNL194C, YNL253W, YNL257C, YNL261W, YNL264C,
YNL276C, YNR006W, YNR034W, YNR047W, YNR051C, YNR071C, YOL065C, YOL067C,
YOR005C, YOR008C, YOR022C, YOR023C, YOR058C, YOR069W, YOR087W, YOR138C,

YOR229W, YOR256C, YOR267C, YPL005W, YPL020C, YPL022W, YPL105C, YPL147W, YPL
YPL152W, YPL164C, YPL168W, YPL180W, YPL188W, YPL194W, YPR025C, YPR047W, YPR
YPR066W, YPR081C, YPR134W, YPR140W, YPR148C, YPR155C, YPR172W, YPR185W, YAI
YAR064W, YBR012C, YBR076W, YBR287W, YDR043C, YDR250C, YDR373W, YFR014C,
YGL191W, YGR180C, YHR136C, YJL026W, YJL037W, YLR038C, YNL058C, YOR031W, YGF
YIL166C, YHR008C, YIL129C, YGL256W, YJR030C, YMR077C, YBR264C, YPL177C, YKR04
YGL056C, YDR128W, YGR139W, YBL101W-A, YOR253W, YOL026C, YDR278C, YHR095W,
YCL042W, YNL200C, YPL221W, YLR415C, YMR058W, YPR037C, YER072W, YML028W,
YOR325W, YAL039C, YMR112C, YJR107W, YGL088W, YJR058C, YNL142W, YDR090C,
YMR071C, YBL093C, YGR293C, YML055W, YDL017W, YDL210W, YGL055W, YCL025C,
YDR080W, YDL181W, YNR030W, YJL017W, YIL127C, YDR281C, YDR366C, YFR026C, YJL
YPL215W, YEL019C, YBR132C, YHL018W, YNL196C, YPL038W, YAR047C, YPL262W, YHI
YPL225W, YBR124W, YOR148C, YKR053C, YBL044W, YER029C, YLR360W, YCL056C,
YCR007C, YGR239C, YNL256W, YPR146C, YLR377C, YKL097C, YBR066C, YLR338W, YDL
YBR253W, YJR027W, YKL198C, YBL030C, YBR031W, YBR118W, YBR162C, YBR221C,
YCR024C-A, YCR106W, YDL046W, YDR012W, YDR133C, YDR134C, YDR276C, YDR342C,
YDR343C, YEL027W, YEL034W, YGR038W, YGR243W, YGR279C, YHR094C, YHR105W,
YHR175W, YHR181W, YIL056W, YIL162W, YJL059W, YJL097W, YJL158C, YJR105W, YKL(
YKL056C, YKL097W-A, YKL100C, YKL141W, YKR066C, YLR134W, YLR258W, YLR339C,
YML058W, YMR083W, YMR203W, YNL209W, YNL307C, YOL030W, YOR178C, YPL028W,
YPR028W, YPR113W, YPR149W, YPR150W, YPR183W, YAL016W, YBL099W, YBL100C,
YBR011C, YBR096W, YBR100W, YBR127C, YBR283C, YBR286W, YCL008C, YCL058C, YCl
YCR034W, YCR069W, YDL015C, YDL023C, YDL061C, YDL086W, YDR038C, YDR039C,
YDR050C, YDR151C, YDR178W, YDR233C, YDR284C, YDR298C, YDR345C, YDR359C,
YDR382W, YDR385W, YDR400W, YDR407C, YDR538W, YEL024W, YEL033W, YEL063C,
YER057C, YER081W, YER120W, YFL011W, YGL012W, YGL206C, YGR022C, YGR026W,
YGR082W, YGR107W, YGR172C, YGR191W, YGR204W, YGR260W, YHL005C, YHL046C,
YHR025W, YHR026W, YHR123W, YHR126C, YHR143W, YIL011W, YIL015W, YIL018W, YII
YIR041W, YJL016W, YJL121C, YJL133W, YJL138C, YJL191W, YJR018W, YJR047C, YJR077(
YJR119C, YJR121W, YJR123W, YJR143C, YJR145C, YKL060C, YKL147C, YKL148C, YKL15°
YKL164C, YKL169C, YKR033C, YLL041C, YLL064C, YLR041W, YLR044C, YLR056W, YLR(
YLR081W, YLR089C, YLR110C, YLR177W, YLR264W, YLR284C, YLR304C, YLR340W, YLF
YLR372W, YLR388W, YML022W, YMR007W, YMR011W, YMR015C, YMR092C, YMR101C,
YMR156C, YMR205C, YMR215W, YMR261C, YMR323W, YNL069C, YNL135C, YNL195C,
YNR076W, YOL039W, YOL073C, YOL086C, YOL120C, YOL156W, YOL161C, YOR002W,
YOR009W, YOR010C, YOR085W, YOR108W, YOR128C, YOR129C, YOR142W, YOR161C,
YOR176W, YOR230W, YOR298W, YPL004C, YPL036W, YPL048W, YPL057C, YPL059W,
YPL061W, YPL135W, YPL179W, YPL218W, YPL220W, YPL246C, YPL272C, YPR063C, YPR(
YPR181C, YBR290W, YCR010C, YCR091W, YDL107W, YDL129W, YDR066C, YDR529C,
YFL026W, YGL018C, YGL059W, YNL144C, YOR003W, YAL037W, YAR023C, YBR003W,
YBR020W, YBR044C, YBR091C, YBR185C, YBR282W, YCR015C, YCR038C, YCR043C, YDI
YDL146W, YDL220C, YDR057W, YDR123C, YDR125C, YDR222W, YDR225W, YDR277C,
YDR286C, YDR347W, YDR408C, YDR438W, YDR479C, YDR483W, YEL039C, YEL057C,
YEL073C, YER066W, YER076C, YER084W, YER121W, YER189W, YFL017C, YFL046W,
YFR006W, YFR008W, YGL115W, YGL208W, YGL214W, YGL218W, YGR021W, YGR023W,
YGR024C, YGR064W, YGR076C, YGR096W, YGR108W, YGR174C, YGR182C, YGR236C,
YGR288W, YHL042W, YHR195W, YHR210C, YIL006W, YIL012W, YIL028W, YIL050W, YIL(
YIL089W, YIL102C, YIL113W, YIL122W, YJL100W, YJL169W, YJL199C, YJR039W, YJR050°
YJR101W, YKL003C, YKL016C, YKL061W, YKL093W, YKL121W, YKL160W, YKL170W,
YKL194C, YKR034W, YKR067W, YLR006C, YLR016C, YLR030W, YLR036C, YLR112W,
YLR125W, YLR128W, YLR204W, YLR211C, YLR233C, YLR257W, YLR288C, YLR326W,
YLR334C, YLR395C, YLR408C, YLR414C, YLR444C, YML050W, YML107C, YML120C, YMl
YMR053C, YMR073C, YMR162C, YMR204C, YMR206W, YMR284W, YNL010W, YNL025C,
YNL127W, YNL139C, YNL217W, YOL116W, YOL118C, YOR053W, YOR100C, YOR103C,
YOR122C, YOR150W, YOR187W, YOR251C, YOR312C, YOR327C, YOR348C, YOR352W,

YOR388C, YOR394W, YPL001W, YPL033C, YPL066W, YPL148C, YPL230W, YPL275W, YPL
YPR005C, YPR014C, YPR192W, YPR194C, YBR005W, YER025W, YFL027C, YGL080W, YGL
YHL028W, YHR185C, YIL076W, YJL166W, YLR046C, YMR035W, YMR238W, YMR252C,
YNL192W, YNL202W, YOL108C, YOR385W, YPR165W, YAR033W, YBL038W, YBR009C,
YBR010W, YBR151W, YCL067C, YCR096C, YDL137W, YDL192W, YDR073W, YDR086C,
YDR224C, YDR377W, YDR378C, YER015W, YGL187C, YHR162W, YJL167W, YJL216C, YKI
YLR165C, YMR197C, YNL157W, YOL002C, YOL109W, YOR180C, YPL010W, YPL233W,
YBR036C, YDR297W, YGR149W, YGR224W, YNL043C, YPL067C, YPL170W, YCR046C,
YDR387C, YFL050C, YGL051W, YHR132C, YIL112W, YJL141C, YKR098C, YLR052W, YLR2
YML129C, YNL203C, YNR014W, YOL043C, YOL096C, YPR184W, YAL028W, YAL055W,
YAR062W, YBL095W, YBL102W, YBR122C, YBR157C, YBR161W, YBR251W, YBR298C,
YCR039C, YCR083W, YDL018C, YDL067C, YDL078C, YDL091C, YDL215C, YDL216C, YDR
YDR067C, YDR079W, YDR181C, YDR186C, YDR196C, YDR262W, YDR306C, YDR319C,
YER188W, YGL004C, YGL035C, YGR036C, YGR062C, YGR120C, YGR131W, YGR141W,
YGR167W, YGR287C, YHL024W, YHR080C, YHR097C, YIL077C, YJL046W, YJL070C, YJL0!
YJL113W, YJL146W, YJL180C, YJR019C, YJR049C, YKR058W, YLL005C, YLR078C, YLR15
YLR271W, YLR295C, YLR351C, YLR375W, YMR023C, YMR025W, YMR135C, YMR210W,
YMR267W, YMR278W, YMR293C, YNL073W, YNR037C, YNR040W, YNR072W, YOR028C,
YOR316C, YOR328W, YOR363C, YPL039W, YPL040C, YPL099C, YPL107W, YPL134C, YPL1
and YPL140C.

[0007] The base sequences of those yeast genes and the amino acid sequences of the corresponding]
are disclosed in public databases such as MIPS in Germany: Munich Information Center for Protein
Sequence, and SGD in USA: Saccharomyces Genome Database, and are known via the internet.

[0008] In addition to the yeast genes as described above, genes that are homologous to the yeast gen
are derived from other species may be used in the invention. In this context, "a gene(s) that is (are)
homologous to the yeast genes" means genes that comprise a base sequence having a homology of 5
more, preferably 80% or more to the base sequences of yeast genes, and that encode a protein havinɡ
same functions as the proteins encoded by the yeast genes.

[0009] Cells as used herein may be either eukaryotic or prokaryotic cells as long as they comprise th
genes as described above. Preferred cells are yeast cells.

[0010] Methods for detecting mRNA have been previously known, and any one of those methods m,
used in the present invention.

[0011] As an embodiment of the invention, mRNA is detected through reverse transcription-PCR. R
transcription-PCR is well known in the art. See, for example, NAKABEPPU Yusaku, et al.: Cell
Technology, suppl. Tips series, Modified PCR Tips, Shujunsha Co.Ltd., 1999, pp25-43. For exampl·
invention comprises:

(1) adding a test material to the cell, and incubating the mixture;
(2) extracting mRNA from the cell;
(3) preparing cDNA from the mRNA via reverse transcription using labeled nucleotides; and
(4) hybridizing the cDNA as used as probe with the gene as described above.

[0012] Incubation of cells may be conducted using usual media and usual temperatures. Test materiɛ
comprising a chemical substance to be tested are added to the medium, and the cells are incubated fι
for several hours. Concentrations of the test materials are selected to not lead to cell death. Test matɛ
may comprise one or more chemical substances.

[0013] For methods of extraction of mRNA, it is well known that a polynucleotide having a poly T
structure which is immobilized on the surface of magnetic beads or latex beads is used to trap the mɹ

and then the mRNA is washed and eluted with spine column in view of the fact that a poly A chain i attached to the 3' terminus of mRNA, which is readily conducted using a commercially available kit as Oligotex-dT30<Super>mRNA Purification Kit, Takara. The mRNA is reverse-transcribed with a reverse transcriptase (Super Script II Reverse Transcriptase; catalogue No. 18064-014, GibcoBRL) ι fluorescence-labeled nucleotides. As such, labeled cDNAs that are introduced with fluorescence-lab‹ nucleotides during the reverse transcription are obtained. Reverse transcriptases and nucleotides that labeled with Cy3-dUTP or Cy5-dUTP are also commercially available (for example, Super Script II Reverse Transcriptase; catalogue No. 18064-014, GibcoBRL). Fluorescence-labeled cDNAs are det‹ with a fluorophotometer.

[0014] RT-PCR is a procedure for detection and quantitative determination of an intended RNA in a of the amplified cDNA, which comprises reverse-transcribing mRNA into cDNA with a reverse transcriptase, and conducting PCR using the cDNA as a starting material as well as specific primer s a thermostable DNA polymerase.

[0015] In the present step, a microarray containing the gene as described above (DNA tip) may be pɪ to hybridize them with the cDNAs, thereby facilitating the efficient detections, which is a preferred embodiment of the present invention.

[0016] As another embodiment of the invention, the mRNA is detected by northern blotting. Northeɪ blotting is well-known in the art (OGATA Nobukuni, NOJIMA Hiroshi: Genetic Engineering Keyw Book, revised 2nd ed., Yodosha, co.jp, 2000, pp299-301). For example, the process comprises

(1) adding a test material to the cell, and incubating the mixture;
(2) extracting mRNA from the cell; and
(3) hybridizing the mRNA with the gene as described above.

[0017] Procedures of northern blotting comprises electrophoresing the RNA, transferring the pattern filter, and hybridizing it with a specific probe labeled with an isotope, thereby analyzing the presenc the amount of the mRNA in a sample as well as the length of the same.

[0018] In the present step, a microarray containing the gene as described above (DNA tip) may be pɪ to hybridize them with the cDNAs, thereby facilitating the efficient detections.

[0019] In further another embodiment of the present invention, the detection of mRNA is conducted detecting the production of a polypeptide encoded by the yeast gene as described above. The produc a polypeptide may be detected for example using an antibody directed to the polypeptide.

[0020] Toxic substances to be detected according to the present invention include arsenic, cadmium, mercury, 4-nitroquinolin-N-oxide, 2,4,5-trichlorophenol, gamma -hexachlorocyclohexane, mangane ethylenebis(dithiocarbamate), 2,4,5,6-tetrachloro-1,3-benzenedicarbonitrile, tetramethylthiuram disu Zinc N,N'-ethylenebis(dithiocarbamate), gingerol, acrolein, and dimethylsulfoxide, all of which are mutagenic.

[0021] The following examples are presented for purpose of further illustration of the invention, and examples are not intended to be limiting the invention in any respect.

EXAMPLES

Example 1

[0022] Yeast (Saccharomyces cerevisiae S288C (a SUC2mal mel gap2 CUP1)) were incubated at 25 C on YPD medium (yeast extract 1%, polypepton 2%, glucose 2%). One of toxic chemical substance added to the cells at logarithmic growth phase, and the cells were further incubated for two hours. C were cultured without any chemical substance in the same condition, and were used as control. Concentrations of the chemical substances were defined to inhibit the growth of the yeast but not lea death.

<tb><TABLE> Columns=2
<tb>
<tb>Head Col 1: Chemical Substances
<tb>Head Col 2: Concentrations

Chemical Substances	Concentrations
(1) Na2As	0.3mM
(2) CdCl2	0.3mM
(3) HgCl2	0.7mM
(4) PbCl2	2mM
(5) 4-nitroquinolin-N-oxide	0.2 mu M
(6) 2,4,5-trichlorophenol	16 mu M
(7) gamma -hexachlorocyclohexane	1.3mM
(8) manganese ethylenebis(dithiocarbamate)	2ppm
(9) 2,4,5,6-tetrachloro-1,3- benzenedicarbonitrile	10 mu M
(10) Tetramethylthiuram disulfide	75 mu M
(11) zinc N,N'-ethylenebis(dithiocarbamate)	2ppm
(12) 8-methyl-N-vanillyl-6-nonenamide	0.82mM
(13) gingerol	1.36mM
(14) acrolein	0.20mM
(15) dimethylsulfoxide	1.41M
(16) Roundup (trademark, herbicide) 1)	1500-fold dilution
(17) sodium dodecylbenzosulfonate	0.02%
(18) sodium lauryl sulfate	0.01%

1) N- (phosphomethyl) glycinate ammonium 41.0%, surfactant 59.0%

<tb></TABLE>

[0023] After completion of the incubation, the culture was centrifuged to collect the cells. To the cel sodium acetate buffer (50mM sodium acetate, 10mM EDTA, 1% SDS) was added, and the mixture shaken at 65 DEG C for five minutes, followed by returning to room temperature, and obtaining the supernatant, of which the procedures were repeated two times. To the supernatant, 1/2 amount of a s of phenol/chloroform was added, and the mixture was centrifuged to give a supernatant, which was with an equal amount of chloroform, and the mixture was centrifuged to give a supernatant. To the supernatant, an equal amount of isopropanol containing 0.3 M sodium acetate was added, and the mi was allowed to stand at room temperature for 30 minutes, after which the mixture was centrifuged tc sediment of the whole RNAs. Seventy % ethanol was added to the sediment, and the mixture was ag centrifuged to give a sediment, which was then dried and dissolved in water. mRNA was isolated frc whole RNAs as followings. In view of the fact that a poly A chain is attached to the 3' terminus of n a polynucleotide having a poly T structure which was immobilized on the surface of latex beads was to trap the mRNA, and then the mRNA was washed and eluted with spine column (Oligotex-dT30<Super>mRNA Purification Kit, Takara). Reverse transcription of the mRNA was conducted v reverse transcriptase (Super Script II Reverse Transcriptase; catalogue No. 18064-014, GibcoBRL) 1 fluorescence-labeled nucleotides to give cDNAs that were introduced with Cy3-dUTP or Cy5-dUTP during the reverse transcription.

[0024] The labeled cDNAs were dissolved in TE buffer (10mM Tris-HCl/ 1mM EDTA, pH8.0), and solution was dropped on the DNA chip containing the whole genes of yeast (DNA Chip Research In

Japan) so that the cDNAs were hybridized on the DNA chip at 65 DEG C for over 12 hours. The
fluoresces intensity of the DNA chip was read with a scanner, and the ratio relative to the fluorescen
intensity resulting from the absence of chemical substance was estimated as the following, which is :
in Tables 1 to 9:

The level of expressed mRNA in the presence of chemical substance DIVIDED The level of express
mRNA in the absence of chemical substance

EMI23.1

EMI24.1

EMI25.1

EMI26.1

EMI27.1

EMI28.1

EMI29.1

EMI30.1

EMI31.1

EMI32.1

EMI33.1

EMI34.1

EMI35.1

EMI36.1

EMI37.1

EMI38.1

EMI39.1

EMI40.1

EMI41.1

EMI42.1

EMI43.1

EMI44.1

EMI45.1

EMI46.1

EMI47.1

EMI48.1

EMI49.1

EMI50.1

EMI51.1

EMI52.1

EMI53.1

EMI54.1

EMI55.1

EMI56.1

EMI57.1

EMI58.1

EMI59.1

EMI60.1

EMI61.1

EMI62.1

EMI63.1

EMI64.1

EMI65.1

EMI66.1

EMI67.1

EMI68.1

EMI69.1

EMI70.1

EMI71.1

EMI72.1

WMI73.1

EMI74.1

EMI75.1

EMI76.1

EMI77.1

EMI78.1

EMI79.1

EMI80.1

EMI81.1

EMI82.1

EMI83.1

EMI84.1

EMI85.1

EMI86.1

EMI87.1

EMI88.1

EMI89.1

EMI90.1

EMI91.1

EMI92.1

EMI93.1

EMI94.1

EMI95.1

EMI96.1

EMI97.1

EMI98.1

EMI99.1

EMI100.1

EMI101.1

EMI102.1

[0025] The tables show that the expressed mRNA of about 700 of 2400 unknown yeast genes was in by any one of toxic chemical substances such as heavy metals, agricultural chemicals, surfactants (T 1), as well as the expressed mRNA of 167 mitochondria-located genes (Table 2), 52 DNA repair ger (Table 3), 161 energy genes (Table 4), 142 transport facilitation genes (Table 5), 90 stress protein ge (Table 6), 142 metabolism genes (Table 7), 60 detoxification genes (Table 8), and 507 genes belong other category (Table 9). Here, when the value of the following is 2 or more, then it is considered significant:
The level of expressed mRNA in the presence of chemical substance DIVIDED The level of express mRNA in the absence of chemical substance.

[0026] "Intensity" indicated in the rightmost column of Tables 1 to 9 is a value of the level of expres mRNA of each gene in control cells as divided by the average level of the expressions of the whole ; When the intensity is low, the error of measurement may be possibly large. The detection is conside1 more precise when expression magnification (expressed mRNA in the presence of chemical substance/expressed mRNA in the absence of chemical substance) is larger. Yeast gene as used in th processes according to the invention is selected, of which the intensity is preferably 0.3 or more, mo: preferably 0.5 or more, and of which the expression magnification is preferably 3 or more, more pre: 5 or more.

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Claims of corresponding document: **EP1426438**

1. A process for detecting a toxic substance, which comprises detecting mRNA that is expressed in t presence of a test material by a cell comprising a yeast gene that is selected from a group consisting following, or a gene that is homologous to the yeast genes and is derived from other species, wherei1 mRNA corresponds to said yeast gene or said homologous gene thereof:
YBR072W, YCR102C, YCR107W, YDL218W, YDL243C, YDR453C, YDR533C, YFL014W,
YFL056C, YFL057C, YGR110W, YJR155W, YKL071W, YKR076W, YLL060C, YLR460C,
YMR090W, YNL331C, YNL332W, YNL335W, YOL150C, YOL165C, YPL171C, YPR167C,
YBL048W, YBL064C, YBL107C, YBR008C, YBR173C, YBR256C, YBR296C, YDL021W, YFL·
YFL024C, YFL061W, YGL121C, YGL158W, YGR043C, YHR029C, YHR112C, YHR139C,
YHR179W, YHR209W, YIR030C, YJR010W, YJR048W, YKL001C, YKL107W, YKR075C,
YKR097W, YLL056C, YLR297W, YLR303W, YML087C, YMR096W, YNL274C, YOL151W,
YOR226C, YOR338W, YOR391C, YPL280W, YDR406W, YJL153C, YLR346C, YOR049C,
YOR153W, YPL088W, YAL034C, YDL124W, YDL174C, YDR476C, YGL156W, YGR035C,
YGR157W, YGR213C, YGR281W, YGR284C, YHL047C, YHR043C, YHR044C, YHR054C, YJI
YKL165C, YLR008C, YMR315W, YNL211C, YOL031C, YOL101C, YOR303W, YAL005C,
YAR031W, YBL005W-A, YBL022C, YBL041W, YBL049W, YBL075C, YBL078C, YBR062C,
YBR169C, YBR294W, YCL020W, YCL035C, YCL043C, YCL050C, YCL057W, YCR012W,
YCR013C, YCR060W, YDL007W, YDL027C, YDL097C, YDL110C, YDL126C, YDL169C, YDF
YDR155C, YDR158W, YDR204W, YDR210W, YDR214W, YDR258C, YDR313C, YDR368W,
YDR435C, YER012W, YER037W, YER091C, YER103W, YFL044C, YFR003C, YFR010W, YFR
YFR024C, YFR044C, YFR053C, YGL006W, YGL048C, YGL062W, YGL141W, YGL157W,
YGL163C, YGL180W, YGL184C, YGR010W, YGR028W, YGR032W, YGR048W, YGR124W,
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YNR076W, YOL039W, YOL073C, YOL086C, YOL120C, YOL156W, YOL161C, YOR002W,
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YOR176W, YOR230W, YOR298W, YPL004C, YPL036W, YPL048W, YPL057C, YPL059W,
YPL061W, YPL135W, YPL179W, YPL218W, YPL220W, YPL246C, YPL272C, YPR063C, YPR(
YPR181C, YBR290W, YCR010C, YCR091W, YDL107W, YDL129W, YDR066C, YDR529C,
YFL026W, YGL018C, YGL059W, YNL144C, YOR003W, YAL037W, YAR023C, YBR003W,
YBR020W, YBR044C, YBR091C, YBR185C, YBR282W, YCR015C, YCR038C, YCR043C, YDI
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YDR286C, YDR347W, YDR408C, YDR438W, YDR479C, YDR483W, YEL039C, YEL057C,
YEL073C, YER066W, YER076C, YER084W, YER121W, YER189W, YFL017C, YFL046W,
YFR006W, YFR008W, YGL115W, YGL208W, YGL214W, YGL218W, YGR021W, YGR023W,
YGR024C, YGR064W, YGR076C, YGR096W, YGR108W, YGR174C, YGR182C, YGR236C,
YGR288W, YHL042W, YHR195W, YHR210C, YIL006W, YIL012W, YIL028W, YIL050W, YIL(
YIL089W, YIL102C, YIL113W, YIL122W, YJL100W, YJL169W, YJL199C, YJR039W, YJR050'
YJR101W, YKL003C, YKL016C, YKL061W, YKL093W, YKL121W, YKL160W, YKL170W,
YKL194C, YKR034W, YKR067W, YLR006C, YLR016C, YLR030W, YLR036C, YLR112W,
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YLR334C, YLR395C, YLR408C, YLR414C, YLR444C, YML050W, YML107C, YML120C, YMI
YMR053C, YMR073C, YMR162C, YMR204C, YMR206W, YMR284W, YNL010W, YNL025C,
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YOR388C, YOR394W, YPL001W, YPL033C, YPL066W, YPL148C, YPL230W, YPL275W, YPL
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YJL113W, YJL146W, YJL180C, YJR019C, YJR049C, YKR058W, YLL005C, YLR078C, YLR15:
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YMR267W, YMR278W, YMR293C, YNL073W, YNR037C, YNR040W, YNR072W, YOR028C,
YOR316C, YOR328W, YOR363C, YPL039W, YPL040C, YPL099C, YPL107W, YPL134C, YPL1
and YPL140C.

2. The process according to claim 1, wherein the yeast gene belongs to a category of unknown yeast

3. The process according to claim 1, wherein the yeast gene belongs to a category of mitochondria g

4. The process according to claim 1, wherein the yeast gene belongs to a category of DNA repair gei

5. The process according to claim 1, wherein the yeast gene belongs to a category of energy genes.

6. The process according to claim 1, wherein the yeast gene belongs to a category of transport facilit
genes.

7. The process according to claim 1, wherein the yeast gene belongs to a category of stress protein g

8. The process according to claim 1, wherein the yeast gene belongs to a category of metabolism ger

9. The process according to claim 1, wherein the yeast gene belongs to a category of detoxification ε

10. The process according to any one of claims 1 to 9, wherein the toxic substance is mutagenic.

11. The process according to any one of claims 1 to 10, wherein the mRNA is amplified by reverse
transcription-PCR, and then detected.

12. The process according to claim 11, which comprises:

(1) adding a test material to the cell, and incubating the mixture;
(2) extracting mRNA from the cell;
(3) preparing cDNA from the mRNA via reverse transcription using labeled nucleotides; and
(4) hybridizing the cDNA as used as probe with the gene as defined in claim 1.

13. The process according to claim 12, wherein step (4) as defined in claim 12 is conducted on a
microarray containing the gene as defined in claim 1.

14. The process according to any one of claims 1 to 10, wherein the mRNA is detected by northern
blotting.

15. The process according to claim 14, which comprises:

(1) adding a test material to the cell, and incubating the mixture;
(2) extracting mRNA from the cell; and
(3) hybridizing the mRNA with the gene as defined in claim 1.

16. The process according to claim 15, wherein step (3) as defined in claim 15 is conducted on a
microarray containing the gene as defined in claim 1.

17. The process according to any one of claims 1 to 10, wherein the detection of mRNA is conducte
detecting the production of a polypeptide encoded by the gene as defined in claim 1.

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(54) Title: METHOD OF DETECTING TOXIC SUBSTANCE

(54) 発明の名称: 毒性物質の検出方法

(57) Abstract: A method of detecting a toxic substance by a biological procedure. Namely, a toxic substance is detected by assaying mRNA corresponding to a gene expressed from cells containing the gene selected from the group consisting of the following yeast gene and genes with various origins homologous to the yeast gene.

(57) 要約:

　毒性物質を生物学的方法で検出する方法を開示する。被検物質の存在下に、以下の酵母遺伝子、及び該酵母遺伝子に相同性の他種由来の遺伝子よりなる群から選択される遺伝子を含む細胞から発現される該遺伝子に対応するmRNAを測定して毒性物質を検出する。

WO 03/018791 A1

明　細　書

毒性物質の検出方法

技術分野

本発明は毒性物質を生物学的方法を用いて検出する方法に関し、詳しくは披検
物質の存在下に酵母の特定の遺伝子から転写されるmRNAを測定することによ
り毒性物質を検出する方法に関する。

背景技術

環境庁により昭和４９年から平成１０年度までの２４年間にわたり毎年行われ
ている化学物質環境追跡調査結果によれば、今まで調査した７７５種類の化学物
質のうち、約４０％の物質が環境中に放出されている。一方、わが国において現
在、工業的に生産されている化学物質は約５万種類とされ、その生産量、種類数
は年々増加している。また、塩素による水処理、焼却処理により非意図的に生成
された化学物質が環境を汚染することが知られている。これらの事実から、環境
中に蓄積されている化学物質は多数あると予測されるが、これら全てを個々に調
査することはきわめて困難である。

従来のバイオアッセイ（：生物材料を用いてその応答性から有害性を評価する
手法）は主として魚類やミジンコ、貝等の個体、細胞の生育阻害や特定の生体反
応を指標としており、環境中の化学物質による毒性の評価はできるが、その毒性
の性質やどのような化学物質に起因するかを判断することはできない。国内では
亜硝酸生成細菌または硝酸精製細菌の活性により評価する方法（特開平06-
123705号公報、特開2000-206087号公報）、鉄バクテリアの活性により評価する
方法（特開平11-37969号公報）が提案されており、水質安全モニタ（富士電機）
のような製品が販売されている。また、国外では、発光微生物の発光強度により
評価する製品（MICROTOX、azur社、アメリカ；LUMIS、drlange社、ドイツ）が市
販されている。しかし、これらはいずれも従来型のバイオアッセイ法の延長であ
り、毒性化学物質に関する詳細な情報は得られない。

わが国の化学物質のリスク管理は、新たな汚染が見出されるたびに化学物質の
見直しが行われ、さらに規制と自主規制を組み合わせる体制の整備がすすめられ

ている。しかし、トリハロメタンやダイオキシンに代表されるような有害化学物

質の非意図的生成および環境放出など、複雑化、多様化する現状に即座に対応す

る体制は整っていない。また、「化学物質の審査及び製造等の規制に関する法

律」における毒性評価法である動物実験はコストや時間がかかり国際的に受け入

5　　れ難くなっている。このように、管理体制についての問題は常に議論されるが、

それを解決する具体的な手段が無いことから課題の解決には至っていない。従っ

て、環境中に存在する化学物質を簡単に同定する方法が要望されている。

発明の開示

本発明者は毒性物質が存在すると特定の酵母遺伝子のmRNAの発現が誘導さ

10　　れることを発見して本発明を完成させた。

即ち、本発明は被検物質の存在下に、以下の群から選択される酵母遺伝子、並

びに該酵母遺伝子に相同性の他種由来の遺伝子よりなる群から選択される遺伝子

を含む細胞から発現される、該遺伝子に対応するmRNAを検出することを特徴

とする毒性物質の検出方法に関する。

15　　YBR072W、YCR102C、YCR107W、YDL218W、YDL243C、YDR453C、YDR533C、YFL014W、

YFL056C、YFL057C、YGR110W、YJR155W、YKL071W、YKR076W、YLL060C、YLR460C、

YMR090W、YNL331C、YNL332W、YNL335W、YOL150C、YOL165C、YPL171C、YPR167C、

YBL048W、YBL064C、YBL107C、YBR008C、YBR173C、YBR256C、YBR296C、YDL021W、

YFL022C、YFL024C、YFL061W、YGL121C、YGL158W、YGR043C、YHR029C、YHR112C、

20　　YHR139C、YHR179W、YHR209W、YIR030C、YJR010W、YJR048W、YKL001C、YKL107W、

YKR075C、YKR097W、YLL056C、YLR297W、YLR303W、YML087C、YMR096W、YNL274C、

YOL151W、YOR226C、YOR338W、YOR391C、YPL280W、YDR406W、YJL153C、YLR346C、

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YGR035C、YGR157W、YGR213C、YGR281W、YGR284C、YHL047C、YHR043C、YHR044C、

25　　YHR054C、YJR073C、YKL165C、YLR008C、YMR315W、YNL211C、YOL031C、YOL101C、

YOR303W、YAL005C、YAR031W、YBL005W-A、YBL022C、YBL041W、YBL049W、YBL075C、

YBL078C、YBR062C、YBR169C、YBR294W、YCL020W、YCL035C、YCL043C、YCL050C、

YCL057W、YCR012W、YCR013C、YCR060W、YDL007W、YDL027C、YDL097C、YDL110C、

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5   YGR197C、YGR201C、YGR212W、YGR231C、YGR244C、YGR254W、YGR268C、YHL030W、
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YML130C、YML131W、YMR040W、YMR118C、YMR214W、YMR251W、YMR297W、YMR322C、
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4

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YHR053C、 YHR057C、 YHR111W、 YHR138C、 YHR161C、 YHR164C、 YHR169W、 YHR174W、

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5   YJL031C、 YJL035C、 YJL053W、 YJL057C、 YJL066C、 YJL068C、 YJL082W、 YJL099W、

YJL102W、 YJL151C、 YJL152W、 YJL161W、 YJL164C、 YJL171C、 YJL172W、 YJL210W、

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15   YMR295C、 YMR314W、 YMR316W、 YNL006W、 YNL007C、 YNL012W、 YNL044W、 YNL045W、

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20   YOR019W、 YOR035C、 YOR036W、 YOR099W、 YOR117W、 YOR124C、 YOR130C、 YOR132W、

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25   YCR098C、 YDL222C、 YDR055W、 YDR077W、 YDR502C、 YEL001C、 YEL042W、 YER026C、

YER106W、 YGR136W、 YGR138C、 YHR137W、 YHR142W、 YIL023C、 YIL153W、 YJL073W、

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YPL203W、 YPL216W、 YPL255W、 YPR006C、 YPR073C、 YPR098C、 YBR050C、 YBR145W、

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5   YPR124W、 YBR074W、 YBR109C、 YBR126C、 YBR201W、 YCR005C、 YDL248W、 YDR041W、

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20   YHL036W、 YHR048W、 YHR104W、 YHR163W、 YIL060W、 YIL136W、 YIR024C、 YJL036W、

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25   YOL147C、 YOL159C、 YOR184W、 YOR228C、 YOR255W、 YPL223C、 YPR160W、 YDL182W、

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YBR186W、 YBR244W、 YBR272C、 YCL069W、 YDL025C、 YDL059C、 YDL085W、 YDL113C、

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25   YLR388W、YML022W、YMR007W、YMR011W、YMR015C、YMR092C、YMR101C、YMR156C、

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15   YLR257W、YLR288C、YLR326W、YLR334C、YLR395C、YLR408C、YLR414C、YLR444C、

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20   YPL066W、YPL148C、YPL230W、YPL275W、YPL276W、YPR005C、YPR014C、YPR192W、

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YCL067C、YCR096C、YDL137W、YDL192W、YDR073W、YDR086C、YDR224C、YDR377W、

25   YDR378C、YER015W、YGL187C、YHR162W、YJL167W、YJL216C、YKR009C、YLR165C、

YMR197C、YNL157W、YOL002C、YOL109W、YOR180C、YPL010W、YPL233W、YBR036C、

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YAR062W、YBL095W、YBL102W、YBR122C、YBR157C、YBR161W、YBR251W、YBR298C、

YCR039C、YCR083W、YDL018C、YDL067C、YDL078C、YDL091C、YDL215C、YDL216C、

YDR022C、YDR067C、YDR079W、YDR181C、YDR186C、YDR196C、YDR262W、YDR306C、

YDR319C、YER188W、YGL004C、YGL035C、YGR036C、YGR062C、YGR120C、YGR131W、

YGR141W、YGR167W、YGR287C、YHL024W、YHR080C、YHR097C、YIL077C、YJL046W、

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YMR025W、YMR135C、YMR210W、YMR267W、YMR278W、YMR293C、YNL073W、YNR037C、

YNR040W、YNR072W、YOR028C、YOR316C、YOR328W、YOR363C、YPL039W、YPL040C、

YPL099C、YPL107W、YPL134C、YPL138C、及びYPL140C。

　　　これらの酵母遺伝子の塩基配列、及び対応するタンパク質のアミノ酸配列は公

共のデータベース（例えば、ドイツのＭＩＰＳ：Munich Information Center

for Protein Sequence、米国のＳＧＤ：Saccharomyces Genome Database）に開

示されており、インターネットを介して知ることができる。

　　　これらの酵母遺伝子ばかりでなく、これらの酵母遺伝子に相同性を有する他種

由来の遺伝子も使用できる。ここに「酵母遺伝子に相同性を有する遺伝子」とは

酵母遺伝子の塩基配列に５０％以上、好ましくは８０％以上の相同性を有する塩

基配列を含む遺伝子であって、該酵母遺伝子がコードするタンパク質と同じ機能

を有するタンパク質をコードする塩基配列を含む遺伝子を言う。

　　　本発明で使用する細胞は上記遺伝子を含んでいるものであれば真核細胞、原核

細胞のいずれの細胞も使用できる。好ましい細胞は酵母細胞である。

　　　ｍＲＮＡを検出する方法は従来知られており、本発明においてそのいずれをも

使用することができる。

　　　本発明の一態様によればｍＲＮＡを検出を逆転写ＰＣＲ法で行なう。逆転写Ｐ

ＣＲ法は当業者に周知の技術である（例えば中別府雄作、他：細胞工学別冊

Tipsシリーズ　改定PCR Tips，秀潤社，1999，pp25-43参照）。例えば、

　　（１）細胞に被験物質を添加して培養を行ない、

　　（２）細胞からｍＲＮＡを抽出し、

　　（３）標識したヌクレオチドを用いてｍＲＮＡを逆転写してｃＤＮＡを得、

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（４）該ｃＤＮＡをプローブとして用いて上記の酵母遺伝子とハイブリダイズさ
せること、

を含む。

　　細胞の培養条件は通常の培地、温度条件で良い。被験物質である化学物質を添
加して更に数時間培養する。この時、被験物質の濃度は細胞が死滅に至らないよ
うな濃度を選択する。被験物質中の化学物質は１種または複数種類でも良い。ｍ
ＲＮＡは３′末端にポリＡ鎖が付加されているため、ｍＲＮＡの抽出は磁気ビー
ズやラテックス粒子の表面上に固定されたポリＴ構造を持ったポリヌクレオチド
と結合させトラップした後に、スピンカラムで洗浄および溶出を行う方法が良く
用いられており、市販のキット（例えば、Oligotex-dT30<Super> mRNA
Purification Kit, Takara）を用いれば簡単である。このｍＲＮＡを蛍光標識し
たヌクレオチドを用い逆転写酵素（Super Script II Reverse Transcriptase）
を用いて逆転写する。逆転写の際に蛍光標識したヌクレオチドを取りこませて標
識ｃＤＮＡを得る。逆転写酵素およびＣｙ３－ｄＵＴＰＣｙ５－ｄＵＴＰで蛍光
標識したヌクレオチドも既に市販されている（例えばSuper Script II Reverse
Transcriptase；カタログ番号18064-014,GibcoBRL）。蛍光標識したｃＤＮＡの
検出は、蛍光検出装置を用いることにより行う。

　　ＲＴ－ＰＣＲは、まずＲＮＡを逆転写酵素（reverse transcriptase）を用い
てｃＤＮＡに逆転社し、次にこのｃＤＮＡを出発材料として特定のプライマーセ
ットと耐熱性ＤＮＡポリメラーゼを用いてＰＣＲを行い、目的のＲＮＡの存在を
そのｃＤＮＡの増幅という形で、検出定量化する方法である。

　　この場合、上記遺伝子を有するマイクロアレイ（ＤＮＡチップ）を準備してお
き、ｃＤＮＡとハイブリダイズさせると効率的に検出を行なうことができ、この
方法は本発明の好ましい態様である。

　　本発明の他の態様によればｍＲＮＡを検出をノーザンブロット法を用いて行な
う。ノーザンブロット法は当業者に周知の技術である（緒方宣邦、野島博：遺伝
子工学キーワードブック　改定第２版、羊土社、2000, pp299-301）。例えば、

　　（１）細胞に被験物質を添加して培養を行ない、

　　（２）細胞からｍＲＮＡを抽出し、

（3）該mRNAを上記の遺伝子とハイブリダイズさせること、

を含む。

　　ノーザンブロット法の手順はRNAを電気泳動して、そのパターンをフィルターに移しとり、アイソトープで標識した特異的な標識プローブとハイブリダイゼーションをさせることで、標本中のmRNAの存在と量、およびその長さを解析する。

　　この場合に、上記遺伝子を有するマイクロアレイ（DNAチップ）を準備しておき、mRNAとハイブリダイズさせると効率的に毒性物質の検出を行なうことができる。

　　本発明の他の態様によればmRNAの生成の確認を上記酵母遺伝子によりコードされるポリペプチドの生成の確認によって行なう。該ポリペプチドの生成の確認は例えば該ポリペプチドの抗体を用いて行なうことができる。

　　本発明の方法により検出することのできる毒性物質には、変異原性物質であるヒ素、カドミウム、水銀、4－ニトロキノリン－N－オキサイド、2，4，5－トリクロロフェノール、γ－ヘキサクロロシクロヘキサン、エチレンビスジチオカルバミドサンマンガン、2，4，5，6－テトラクロロ－1，3－ベンゼンジカルボニトリル、テトラメチルチウラムジスルフィド、エチレンビス（ジチオカルバメート）亜鉛、ジンジャオール、アクロレイン、ジメチルスルホオキシドを含む。

　　以下に本発明の方法を実施例により説明するが本発明はこれら実施例に限定されるものでないことは勿論である。

実施例

実施例1

　　YPD培地（酵母エキス1％、ポリペプトン2％、ブドウ糖2％）に酵母（Saccharomyces cerevisiae S288C（α SUC2mal mel gap2 CUP1））を25℃で培養した。対数増殖期に以下の細胞に対して毒性を有する化学物質の1つを添加して更に2時間培養した。これと同条件で化学物質を添加せずに培養して対照区とした。化学物質の濃度は酵母の生育を阻害するが死滅には至らないような濃度を選択した。

化学物質	濃度

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(1) Na$_2$As   0.3mM

(2) CdCl$_2$ 0.3mM

(3) HgCl$_2$ 0.7mM

(4) PbCl$_2$ 2mM

5   (5) 4－ニトロキノリン－N－オキサイド   0.2μM

(6) 2,4,5－トリクロロフェノール   16μM

(7) γ－ヘキサクロロシクロヘキサン   1.3mM

(8) エチレンビスジチオカルバミドサンマンガン   2ppm

(9) 2,4,5,6－テトラクロロ－1,3－   10μM

10   ベンゼンジカルボニトリル

(10) テトラメチルチウラムジスルフィド   75μM

(11) エチレンビス（ジチオカルバメート）亜鉛   2ppm

(12) 8－メチル－N－バニリル－6－ノネンアミド   0.82mM

(13) ジンジャオール   1.36mM

15   (14) アクロレイン   0.20mM

(15) ジメチルスルホオキシド   1.41M

(16) ラウンドアップ（登録商標、除草剤）[1)]   1500倍希釈

(17) ドデシルベンゾスルホン酸ナトリウム   0.02％

(18) ラウリル硫酸ナトリウム   0.01％

20   1) N－（ホスホメチル）グリシナートアンモニウム41.0％、界面活性剤5
       9.0％

       培養終了後遠心して集菌した。これに酢酸ナトリウム緩衝液（50mM酢酸ナ
       トリウム、10mM　EDTA、1％SDS）を加え、65℃で5分間振とうし、
25   室温に戻した後上澄みを得るという操作を2回繰り返した。これにフェノール／
       クロロホルム1：1溶液を1／2容量加えて遠心し上澄みを得、これに上澄みと
       等容量のクロロホルムを加え遠心し、上澄みを得た。この上澄みに等容量の0.
       3M酢酸ナトリウムを含むイソプロパノールを加え室温にて30分放置後遠心を
       行ない全RNAの沈殿物を得た。この沈殿物に70％エタノールを加え遠心し再

度沈殿させ、乾燥後水に溶解させた。この全RNAから次の方法によりmRNA
を単離した。mRNAは3′末端にポリA鎖が付加されているため、ラテックス
粒子の表面上に固定されたポリT構造を持ったポリヌクレオチドによりmRNA
をトラップした後に、スピンカラムで洗浄、溶出を行なった（Oligotex-
5　　dT30<Super>mRNA Purification Kit, Takara）。このmRNAを蛍光標識したヌ
クレオチドを用い逆転写酵素（Super Script II Reverse Transcriptase；カタ
ログ番号18064-014, GibcoBRL）を用いて逆転写し、逆転写の際にＣｙ３－ｄＵＴ
ＰまたはＣｙ５－ｄＵＴＰを取りこませて標識ｃＤＮＡを得た。

　　この標識ｃＤＮＡをＴＥバッファー（10mM Tris・HCl/1mM EDTA, pH8.0）に溶
10　　解し、酵母のすべての遺伝子を有するＤＮＡチップ（ＤＮＡチップ研究所製）に
滴下し、６５℃で１２時間以上ハイブリダイズさせた。このＤＮＡチップの蛍光
強度をスキャナーで読み取り、化学物質を添加しない場合の蛍光強度に対する比、
即ち化学物質存在下における発現mRNA量／化学物質不存在下における発現m
ＲＮＡ量として表１～９に示した。

表１　機能未知の酵母遺伝子

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
	化学物質存在下の発現ｍRNA／不存在下の発現ｍRNA																		
YCR102C	3.4	3.2	2.4	1.1	0.7	0.4	1.1	4.9	9.8	61.5	13.5	0.5	1.1	4.1	0.9	1.2	1.1	1.2	0.53
YDL218W	3.5	1.2	2.6	1.4	0.7	0.9	1.1	1.5	72.5	12.6	5.7	0.9	1.1	4.8	1.1	3.5	1.1	0.9	0.42
YDR533C	3.4	4.9	3.5	1.8	1.3	2.2	1.7	5.4	7.3	12.7	7.7	1.4	3.0	2.9	2.5	6.7	2.3	2.7	1.82
YGR110W	1.6	3.1	2.2	5.9	0.9	0.9	1.7	1.5	6.4	4.8	0.5	1.4	3.6	2.8	1.2	17.1	0.9	2.1	0.19
YKL071W	8.3	3.8	5.4	2.8	1.1	18.6	3.7	24.7	162.2	109.2	40.3	1.0	8.4	21.9	1.7	2.2	1.0	0.9	0.31
YLR460C	2.1	2.1	2.0	1.1	1.3	0.6	1.1	8.1	13.9	31.6	14.3	0.4	0.7	3.5	0.7	1.8	1.0	1.1	0.48
YMR090W	6.9	9.5	2.3	3.5	0.7	3.8	2.7	3.9	16.7	6.1	8.8	2.2	6.9	6.5	1.9	5.1	1.8	2.8	1.30
YOL150C	4.1	3.7	9.9	0.9	1.0	5.2	2.4	3.7	10.8	8.3	9.4	2.9	8.9	5.7	1.8	3.1	2.7	2.2	0.47
YBL048W	2.0	7.9	2.3	2.8	1.3	2.0	1.9	1.2	7.2	4.4	2.0	1.2	2.7	2.0	4.1	5.7	1.3	1.0	0.29
YBL107C	1.4	1.1	0.4	1.5	1.2	1.1	2.1	1.9	1.0	3.1	2.9	1.4	2.6	2.5	1.4	1.5	0.9	1.4	1.03
YFL024C	1.0	1.1	1.1	0.7	1.1	2.0	3.3	0.9	0.5	0.5	0.6	0.8	0.9	3.3	0.9	1.1	0.9	0.8	0.37
YGL121C	2.6	5.0	1.4	4.2	0.9	9.8	4.7	3.0	7.0	15.0	6.1	1.6	7.8	5.8	1.6	8.5	2.7	3.5	0.60
YHR029C	2.8	1.8	1.8	1.8	1.0	2.7	2.0	2.7	13.6	8.6	3.8	1.5	4.7	3.5	1.0	1.0	2.1	2.1	0.87
YHR209W	2.8	1.1	0.8	4.5	1.8	3.2	5.0	2.0	2.9	6.4	3.3	1.0	2.0	2.2	5.0	3.5	2.6	2.6	0.56
YKL107W	2.4	2.5	0.5	0.8	1.1	2.0	1.1	0.9	28.2	8.3	2.0	1.0	1.9	3.4	1.7	3.5	1.6	0.9	0.17
YKR075C	1.5	0.7	2.7	4.5	1.2	1.5	1.4	2.0	0.2	0.6	1.3	2.3	3.8	2.7	0.4	4.3	2.4	1.9	1.15
YLL056C	2.1	2.3	3.0	2.0	1.1	0.6	1.0	1.3	58.8	8.8	1.7	1.3	6.8	11.0	1.5	4.8	5.3	2.5	0.32
YLR297W	2.4	2.1	3.5	1.7	1.3	0.8	1.1	1.3	2.1	5.5	3.5	0.8	0.8	2.3	0.7	1.8	0.7	1.0	0.81
YOR338W	1.8	1.8	0.5	1.7	1.6	2.6	1.3	2.2	0.6	3.5	0.8	1.2	1.4	2.5	1.8	1.0	1.1	0.5	0.52
YOR391C	2.1	2.0	0.9	1.2	1.3	1.6	2.0	2.8	18.8	18.1	3.2	1.1	2.3	2.4	5.8	2.2	1.0	0.9	0.22
YPL280W	1.7	1.9	1.9	2.0	1.4	1.9	1.8	2.3	49.8	14.0	1.9	0.9	2.4	2.4	4.3	1.5	1.2	0.9	0.22
YLR346C	4.4	2.0	2.1	4.5	1.3	5.5	5.6	1.3	8.6	6.6	0.5	4.2	6.2	2.2	1.0	2.4	10.6	7.8	0.53
YOR049C	2.5	0.9	12.8	1.4	1.0	8.4	4.2	0.9	1.1	1.9	1.1	6.7	7.1	1.5	1.3	4.3	2.6	2.9	0.22
YAL034C	1.1	1.8	2.8	1.1	0.5	1.5	1.8	1.0	3.0	3.3	1.5	2.8	4.9	1.2	1.4	1.0	1.2	1.3	0.52
YDR476C	0.7	1.8	6.0	1.2	1.3	3.1	1.5	1.3	1.7	3.4	1.6	2.1	2.8	1.1	2.2	2.0	2.4	1.5	0.58
YGR035C	1.6	0.6	1.2	0.6	1.2	3.3	1.1	0.9	1.1	0.5	0.4	3.3	2.1	0.8	0.3	1.9	2.5	4.3	1.04
YGR284C	1.0	2.0	4.0	1.4	1.0	1.4	2.2	1.1	4.3	1.8	1.7	2.1	3.6	1.2	3.9	1.9	1.3	2.1	2.57
YHR054C	1.7	0.9	2.2	1.0	1.0	2.9	1.6	1.8	2.6	7.7	0.9	3.6	5.8	1.0	0.8	2.2	5.1	3.4	0.80

YLR008C	2.00	4.9	5.4	1.7	0.7	1.6	6.2	3.5	0.8	0.7	0.4	1.0	2.0	2.7	1.3	0.9	0.7	0.5	0.9
YMR315W	1.76	2.8	2.1	1.6	2.5	1.3	2.5	2.0	3.2	2.6	2.4	2.0	2.9	4.2		1.7	1.8	4.3	
YNL211C	0.52	6.8	4.2	9.3	0.8	1.1	9.9	3.2	1.1	1.1	0.8	1.1	3.1	7.4	1.0	1.0	0.8	1.0	1.2
YOL031C	1.20	1.9	1.2	1.5	4.4	1.1	2.4	2.1	1.3	1.4	2.3	2.1	2.5	1.0	1.2	1.7	1.0	1.9	0.9
YOL101C	1.37	0.6	0.6	3.5	0.6	0.8	0.2	2.4	0.9	0.3	0.1	0.9	0.7	0.5	1.6	1.7	0.4	0.8	0.9
YAR031W	1.00	2.5	1.6	3.5	0.9	1.4	3.3	1.2	1.4	1.6	2.7	1.2	1.6	2.9	1.1	1.7	1.1	1.1	1.5
YBL049W	0.47	1.1	1.1	6.4	7.2	1.5	3.9	0.7	2.2	5.2	5.2	1.9	1.7		1.1	2.9	2.1	11.8	2.9
YBR062C	0.93	1.6	1.4	2.2	0.7	2.6	2.8	1.2	2.3	2.2	5.4	1.9	1.5	1.9	1.4	1.2	0.4	1.7	1.3
YCR013C	2.80	1.3	1.1	1.6	1.6	1.5	3.9	1.4	2.4	1.3	0.8	0.7	1.6	1.8	1.1	1.1	5.0	1.4	1.3
YDL027C	0.69	2.0	1.4	1.8	1.4	1.1	3.2	1.7	1.7	2.3	2.0	1.5	2.9	2.1	1.2	1.7	1.7	2.0	1.2
YDL110C	1.27	4.4	2.0	3.6	1.3	2.7	2.7	1.5	1.9	2.3	3.0	1.8	2.5	1.7	0.8	2.1	1.1	1.4	1.5
YDL169C	0.42	1.6	1.5	3.8	2.2	2.7	3.7	1.2	1.2	4.7	7.3	1.3	2.1	2.6	1.1	1.3	1.1	1.7	1.7
YDR070C	0.44	3.1	1.2	15.1	2.1	2.0	6.6	4.3	4.1	6.0	13.9	1.9	1.4	6.2	0.9	3.5	3.6	6.4	2.2
YDR210W	1.82	1.9	1.9	1.5	1.0	1.1	2.3	1.0	1.0	1.0	0.5	1.4	1.5	1.2	2.0	1.0	0.9	1.0	1.1
YDR214W	1.07	1.0	1.2	0.7	1.1	1.2	5.3	1.1	1.9	2.4	5.5	1.5	1.5	1.7	1.1	1.3	4.5	4.0	1.3
YDR435C	1.30	2.0	1.3	2.0	0.6	1.3	2.5	1.1	1.3	2.1	0.8	1.2	2.1	2.5	1.2	1.4	1.2	1.1	1.2
YER037W	1.17	2.6	1.7	1.8	0.8	1.7	3.0	1.2	1.5	5.5	1.0	1.0	2.6	3.2	1.3	1.1	0.8	2.1	2.0
YFL044C	0.50	1.4	1.3	1.8	1.0	1.2	4.7	1.2	2.2	3.7	5.2	1.4	1.6	1.3	1.6	2.3	0.8	1.5	1.0
YFR003C	1.01	1.8	1.3	1.4	1.0	2.1	2.5	0.9	1.4	3.1	8.3	1.4	1.4	2.2	1.0	1.6	0.8	1.5	1.2
YFR020W	0.61	0.9	1.2	1.0	2.6	1.8	2.3	0.9	1.9	3.5	3.7	0.9	1.1	1.4	0.9	1.0	0.8	0.9	1.0
YFR044C	1.99	1.0	1.0	1.2	1.5	0.8	3.1	1.2	1.5	2.2	2.1	0.8	1.2	2.1	0.9	1.1	1.2	1.3	0.9
YGR010W	0.55	1.3	0.8	1.4	1.3	1.9	5.2	0.9	2.3	8.9	13.6	1.6	1.7	1.2	0.8	1.2	3.8	1.6	1.2
YGR142W	1.28	1.5	1.9	0.3	1.3	0.9	8.9	2.0	0.8	12.2	36.8	1.5	1.4	0.9	1.3	1.3	0.9	6.2	2.7
YGR161C	0.65	1.8	1.5	1.1	1.7	0.9	2.8	1.7	0.9	3.8	2.0	1.3	1.4	1.4	1.0	3.8	15.3	2.2	2.0
YGR212W	0.28	2.2	3.9	2.1	1.1	1.1	10.0	1.5	0.9	3.8	1.1	1.0			1.2	1.3	5.4	1.7	1.5
YGR268C	0.48	1.4	1.5	1.2	1.5	1.0	2.8	1.0	0.8	1.6	4.1	1.1	1.0	1.1	1.1	2.5	1.5	2.3	1.1
YHR016C	0.51	1.4	1.2	2.1	0.6	0.9	3.3	1.3	2.2	2.0	2.8	0.8	3.7	1.8		1.5	1.7	1.5	0.8
YHR087W	1.34	2.9	1.2	3.8	1.9	1.5	4.0	1.4	3.7	3.9	4.1	1.2	3.4	4.2	0.7	2.8	8.6	2.7	1.2
YJL048C	0.82	2.5	1.6	2.3	0.6	1.7	2.4	1.1	3.2	3.8	1.2	1.5	0.7	1.5	0.9	2.9	2.0	2.5	1.7
YJL144W	0.60	2.4	2.2	2.5	1.0	1.6	3.9	0.8	3.0	8.9	14.6	1.3	1.7	1.7	1.2	1.6	2.2	1.6	1.9
YJL163C	0.28	1.7	1.5	2.8	2.0	1.0	4.5	2.0	3.1	2.5	14.5	0.7	2.3	2.8	0.9	1.5	1.7	1.9	1.2

YJR074W	0.68	1.9	1.8	1.5	3.4	1.7	2.8	2.0	1.2	3.1	3.7	1.3	1.8	1.2	0.7	2.0	2.0	1.4	1.0
YKL065C	2.29	4.6	2.8	2.8	1.7	2.1	3.0	1.3	1.3	3.9	3.1	1.8	3.8	2.3	1.0	1.7	1.3	2.0	1.9
YKR011C	0.66	1.9	1.3	1.3	1.8	1.4	3.5	1.1	1.5	4.4	4.7	2.0	2.7	2.3	1.2	1.6	0.9	1.6	1.1
YKR018C	0.98	1.2	1.0	1.8	1.0	1.1	3.0	1.0	1.4	1.7	3.9	0.7	1.0	1.7	0.9	0.7	1.7	1.1	0.7
YKR046C	0.73	1.9	1.2	3.5	2.9	1.9	2.8	1.3	2.6	2.0	3.9	0.8	1.3	1.9	0.6	1.8	2.8	7.8	1.9
YKR049C	1.17	3.3	1.6	4.2	0.9	2.1	4.1	1.2	2.2	3.2	2.2	1.3	2.4	3.0	0.9	3.2	1.0	4.2	1.6
YLR132C	0.36	1.6	1.2	1.6	2.3	1.3	2.7	1.0	0.5	2.5	4.5	0.7	1.1	1.1	1.2	1.1	0.3	1.1	1.0
YLR161W	0.33	0.9	1.1	1.1	0.6	1.0	2.1	0.8	1.5	1.5	1.0	0.8	1.3	1.2	0.9	0.7	0.8	0.8	0.9
YLR217W	0.35	1.2	1.0	0.8	0.9	0.9	3.8	0.9		8.2	3.2	1.0	1.5	1.4	1.4	0.7	2.1	2.0	0.9
YLR328W	1.04	0.8	1.1	1.4	0.8	0.5	4.3	1.2	1.4	1.2	0.9	1.1	5.4	4.8	0.9	0.9	1.3	1.2	1.3
YML128C	1.66	5.5	2.0	5.6	2.6	1.4	4.9	1.4	2.9	3.1	5.1	1.1	2.8	5.1	0.5	4.1	4.1	3.3	1.5
YMR040W	0.62	3.7	3.1	2.7	2.0	1.8	5.2	2.1	1.5	1.4	1.4	1.7	5.1	2.8	1.7	2.8	0.9	2.9	3.1
YMR251W	0.20	0.9	1.5	1.3	0.4	1.5	2.5	1.2	2.8	11.6	3.1	1.7	3.1	1.6	2.2	0.6	1.8	1.3	1.3
YMR322C	0.18	0.8	1.4	1.8	3.6	2.7	2.1	1.1	3.2	10.3	21.3	2.1	1.7	1.8	1.4	2.9	1.5	4.3	2.0
YNL094W	0.66	1.3	1.1	1.5	1.5	1.0	3.4	1.2	1.7	2.6	3.5	2.0	1.2	2.9	1.4	1.0	1.1	1.4	0.9
YNL134C	2.51	2.0	1.3	2.1	0.8	1.4	3.1	1.1	5.0	5.9	6.1	3.2	1.5	1.4	1.7	0.9	4.5	6.0	2.3
YNL155W	1.89	1.6	1.1	2.0	2.0	2.1	4.4	1.1	2.2	2.7	5.8	1.7	1.3	3.0	1.4	0.9	1.1	1.2	1.1
YOR059C	0.71	1.7	1.3	1.8	3.5	2.2	3.3	1.0	1.0	4.6	7.6	1.3	2.2	1.1	1.4	0.9	0.4	1.2	1.2
YOR152C	0.42	2.2	4.0	2.1	3.6	1.7	7.4	2.9	2.7	5.0	10.0	1.2	3.2	4.5	0.8	2.9	3.4	2.5	4.5
YOR173W	0.54	3.8	1.7	5.7	0.7	2.8	3.8	1.9	2.3	3.7	5.2	1.4	4.9	3.5	0.9	2.0	6.3	2.3	0.7
YOR289W	0.74	3.9	2.3	3.0	1.6	2.0	4.3	1.5	2.6	1.7	2.4	2.4	6.1	4.2	1.2	2.0	1.0	1.5	1.6
YPR030W	0.30	2.1	1.4	3.1	1.5	1.5	3.2	1.4	1.2	2.4	2.5	0.9	1.2	1.3	1.2	1.0	1.4	1.4	1.7
YAL008W	1.04	1.9	1.4	4.2	0.9	2.6	2.2	1.3	2.2	1.5	1.8	1.3	1.9	1.6	0.7	2.4	2.0	2.4	1.4
YBR053C	1.25	2.4	1.9	2.8	0.7	1.0	2.4	1.1	2.3	2.1	2.9	1.2	4.1	2.7	1.6	2.4	2.4	1.6	1.0
YBR099C	0.47	0.9	0.8	0.5	0.8	1.6	2.1	1.0	0.4	12.9	3.4	1.5	0.9	0.5	1.0	1.8	7.2	1.4	1.0
YBR137W	1.40	2.6	1.4	2.8	0.6	1.8	2.1	1.4	2.4	1.8	2.2	2.0	2.7	2.4	0.9	3.5	1.4	2.2	1.1
YBR203W	0.38	2.2	1.4	18.0	1.0	1.3	2.4	1.6	1.3	1.8	1.1	1.3	0.9	0.6	0.9	2.4	1.6	1.4	1.4
YCL049C	0.86	1.4	1.4	2.1	1.4	1.8	2.4	1.4	1.6	1.9	2.0	1.0	2.1	2.3	1.6	1.2	1.4	1.3	1.9
YCR082W	1.62	1.7	1.2	2.2	1.6	2.4	2.0	1.0	2.0	2.3	4.3	1.5	1.5	1.3	1.3	1.2	0.7	1.2	1.4
YDL054C	0.92	1.0	1.0	1.0	1.0	1.2	2.7	1.1	2.1	2.1	3.5	0.7	0.9	1.2	1.2	1.1	2.7	2.2	1.3
YDL115C	0.83	1.8	1.3	1.6	1.2	2.3	1.9	1.1	1.8	3.6	6.6	1.6	1.8	1.5	0.8	1.8	0.5	1.0	1.4

Gene	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19
YDL144C	0.52	0.9	0.9	1.1	1.0	1.2	2.1	1.0	1.9	1.2	3.6	0.9	1.0	1.8	1.0	1.5	1.2	0.9	0.8
YDL223C	0.32	1.0	0.9	7.2	3.1	1.3	3.1	1.0	5.2	1.5	3.8	0.3	1.0	0.8	0.9	2.5	5.0	1.1	0.7
YDR032C	3.50	3.5	1.9	3.8	1.3	2.8	2.9	1.8	3.3	2.9	3.1	2.4	2.8	2.7	1.4	2.5	3.5	2.2	1.7
YDR330W	0.53	1.3	1.5	1.4	1.6	1.1	2.2	1.0	0.9	2.6	3.9	1.1	1.3	2.3	1.2	0.8	1.2	1.5	0.8
YDR411C	0.56	1.3	1.5	1.5	4.1	0.8	1.9	1.5	1.3	1.0	0.7	0.9	2.0	0.8	1.6	1.2	1.8	2.8	0.9
YDR511W	0.66	1.5	1.3	2.2	0.8	2.2	3.1	0.8	1.2	2.2	2.5	1.7	1.5	2.0	1.0	2.3	0.9	1.7	1.3
YDR545W	1.06	0.9	0.9	0.9	0.9	0.7	2.0	0.9	0.7	0.7	1.8	0.6	1.2	1.0	1.4	0.7	0.6	1.2	0.6
YER004W	1.48	1.2	1.4	2.3	1.4	1.8	4.6	1.7	2.2	2.9	4.5	1.1	1.4	1.2	1.5	1.4	1.9	1.5	1.0
YER035W	0.85	2.1	2.2	2.1	0.9	1.0	1.9	1.1	1.4	1.4	1.2	1.2	1.9	0.9	1.5	1.9	1.6	1.6	1.4
YER079W	0.69	1.6	1.0	1.4	0.5	1.6	2.1	0.9	2.1	3.4	5.3	1.4	1.9	1.5	1.5	2.0	1.9	1.6	1.1
YER158C	0.61	1.2	1.6	1.6	0.6	0.9	3.1	1.0	2.3	1.6	2.1	0.9	1.9	0.7	0.8	3.1	0.9	1.6	1.2
YER163C	0.62	1.2	1.2	2.4	1.6	1.9	2.9	1.0	1.6	3.4	5.4	1.4	1.2	2.0	0.8	1.6	1.2	0.9	1.1
YER175C	0.53	1.2	0.9	2.8	1.3	1.1	4.3	0.9	1.1	11.5	1.9	1.1	1.5	0.8	0.9	2.2	1.3	2.4	0.9
YFL006W	0.82	0.8	1.0	1.1	2.4	1.7	3.1	1.2	1.2	1.7	3.2	1.0	2.3	1.2	1.4	1.0	1.6	1.2	0.8
YFL010C	0.77	1.6	1.9	1.4	1.7	1.4	3.3	1.5	1.4	1.4	3.1	1.0	1.0	1.9	1.3	1.0	1.3	2.8	1.0
YFL032W	1.62	0.8	1.7	0.7	2.0	0.6	2.4	0.7	1.1	0.6	0.5	0.4	1.1	0.6	0.9	0.8	1.6	4.8	0.4
YGL037C	4.58	2.6	1.3	1.5	0.8	1.0	2.3	0.8	3.9	1.6	2.1	1.2	2.9	1.3	0.9	2.1	6.5	2.7	1.5
YGL047W	0.97	1.2	1.1	2.9	1.7	2.3	2.6	1.1	1.9	5.7	4.5	1.1	1.7	1.5	1.3	2.3	1.6	1.9	1.0
YGL053W	1.26	3.7	2.2	3.9	1.1	1.1	3.3	1.3	1.3	2.4	3.3	1.2	3.7	2.7	2.0	2.5	1.2	1.5	1.5
YGL199C	0.36	1.0	1.2	1.6	1.6	0.8	2.0	0.9		0.1		0.7	1.3	0.7	0.7	1.0	1.7	1.7	1.1
YGR101W	1.04	1.1	1.0	2.0	1.1	0.9	2.4	1.0	2.0	1.4	4.0	0.8	1.5	0.9	1.2	1.1	1.2	1.3	1.0
YGR130C	0.78	1.6	1.3	2.2	1.2	0.9	1.9	0.7	0.8	1.5	2.0	0.9	1.3	0.9	1.4	1.6	0.6	0.7	0.9
YGR154C	0.36	1.2	1.0	2.0	0.7	2.2	2.5	0.9	1.5	9.1	25.2	1.7	2.0	1.4	1.2	0.5	2.2	2.9	1.8
YGR221C	0.29	1.3	1.3	2.7	1.5	1.4	2.3	1.6	0.5	0.7		1.1	1.2	3.0	0.9	1.4	0.9	2.2	0.9
YHR138C	1.89	7.1	5.0	3.3	2.2	3.4	4.0	1.8	1.6	4.6	5.3	1.4	3.0	3.8	1.5	2.8	2.2	1.8	2.8
YHR199C	0.63	0.9	1.1	3.3	2.8	2.0	2.1	1.1	1.9	6.0	8.6	1.0	1.1	1.1	1.2	2.0	3.2	2.0	1.9
YIL041W	1.33	1.1	0.8	0.7	1.3	1.3	2.3	1.0	1.4	1.4	1.8	0.9	0.8	1.0	0.5	1.3	2.1	1.2	1.0
YIL087C	0.68	1.6	1.7	5.6	0.4	1.3	2.4	1.1	2.8	1.8	2.4	1.1	1.8	4.1	1.4	1.6	3.4	1.9	1.3
YJL057C	0.51	1.5	1.4	1.9	1.4	1.6	2.5	1.0	2.0	6.1	7.3	1.5	2.7	1.4	1.5	1.7	1.6	1.2	1.5
YJL066C	0.43	1.5	1.4	2.8	1.3	1.0	2.2	1.0	0.8	2.1	2.0	0.8	1.6	1.4	0.8	2.5	1.2	1.2	0.9
YJL082W	2.07	0.3	0.6	0.2	3.2	0.5	2.1	1.3	1.0	2.9	1.4	0.9	0.4	0.2	1.7	1.1	2.4	0.8	1.4

Gene	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19
YJL151C	1.69	2.4	3.5	2.5	1.0	1.3	2.4	1.3	1.0	1.6	0.5	0.8	1.4	2.2	1.3	1.2	3.2	2.4	1.0
YJL152W	0.80	1.7	2.5	1.6	0.8	1.4	1.8	1.0	1.0	1.0	0.3	0.7	1.2	1.5	1.6	1.3	1.8	1.5	0.9
YJL161W	0.44	2.1	1.9	4.4	0.6	2.2	2.5	1.0	3.7	2.1	3.1	1.4	3.6	8.0	1.1	4.6	1.5	2.2	1.7
YJL171C	1.94	2.9	3.6	1.0	1.8	1.0	2.9	1.0	2.2	1.7	1.0	0.9	1.4	2.7	1.0	1.4	2.8	0.7	2.3
YJR008W	0.87	2.7	1.5	3.3	0.9	1.2	2.0	1.3	1.4	1.9	1.8	1.1	2.9	2.2	1.4	1.7	1.2	1.5	1.6
YKL151C	1.02	1.8	1.4	3.7	1.4	1.3	2.0	1.0	2.3	3.5	3.3	1.0	5.6	2.0	1.0	2.5	1.7	3.1	1.2
YKL153W	1.60	1.3	0.9	1.1	1.5	1.1	2.4	1.1	2.1	1.4	0.8	0.7	1.1	2.9	1.0	0.7	2.0	1.4	1.1
YKL195W	1.58	1.6	1.4	1.7	0.9	1.6	2.4	1.1	1.0	2.1	3.6	1.2	2.1	2.5	1.9	1.1	0.4	0.5	0.8
YLR054C	0.14	1.1	1.6	0.9	0.7	1.1	3.2	2.0	0.7	1.1	2.7	1.1	1.1	1.2	1.3	2.4	0.4	1.5	2.0
YLR149C	0.33	3.0	1.3	2.8	1.3	1.2	3.0	1.0	2.8	5.2	6.2	1.1	1.6	1.4	0.8	2.3	3.4	1.9	1.4
YLR152C	0.46	1.8	1.5	2.8	0.8	1.2	2.8	0.8	3.6	1.1	0.6	1.2	1.4	2.1	1.1	0.9	1.1	1.3	0.7
YLR324W	0.49	1.2	1.2	1.7	1.6	1.4	2.3	1.8	0.9	1.4	3.1	1.0	1.0	1.2	1.3	1.0	0.9	1.2	0.7
YLR350W	1.52	1.1	1.6	2.9	1.6	2.8	4.5	1.1	0.9	1.4	0.6	1.0	1.2	1.6	0.8	2.3	3.2	1.9	1.2
YLR387C	1.20	1.4	1.0	1.0	1.9	1.7	3.6	0.8	0.9	3.0	7.8	1.4	1.1	1.9	1.3	0.6	0.8	1.6	0.9
YML117W	0.70	1.3	1.1	0.7	2.8	0.8	2.0	0.6	0.8	1.4	1.0	0.7	0.7	1.0	0.8	1.6	0.9	2.2	0.9
YMR009W	0.75	2.5	2.7	2.3	0.6	1.9	2.3	1.1	2.1	2.2	3.4	1.4	1.9	1.2	1.9	1.9	0.5	1.9	2.3
YMR067C	0.49	1.0	1.0	1.0	1.4	1.5	2.2	1.2	1.1	3.5	4.0	1.1	1.2	1.4	1.1	0.4	1.1	0.9	0.9
YMR097C	0.59	1.8	1.4	1.7	1.7	2.1	2.1	2.4	1.5	2.1	2.1	1.5	1.5	1.2	0.7	1.6	0.7	1.0	1.5
YMR102C	0.94	2.8	2.4	1.1	0.7	0.7	4.4	0.8	1.5	2.6	1.7	1.0	1.8	6.3	1.2	0.8	1.1	2.9	1.0
YMR107W	0.49	8.1	1.3	12.0	1.9	8.1	1.8	1.2	3.0	17.1	6.0	1.3	1.2	1.0	1.1	18.4	1.7	3.9	5.0
YMR180C	0.57	1.7	1.4	1.8	1.0	1.7	3.1	1.7	0.7	2.2	1.8	1.8	1.7	2.4	1.0	1.3	1.0	0.9	1.2
YMR184W	0.68	2.0	1.4	1.2	1.1	1.5	2.3	1.8	1.5	0.9	2.1	1.9	1.6	0.9	0.8	1.1	1.0	5.4	1.3
YMR191W	0.99	2.1	1.2	1.7	2.7	1.5	3.4	1.1	2.3	3.5	2.2	1.1	2.0	1.0	1.5	1.6	1.9	2.4	1.3
YMR295C	3.43	3.4	2.1	1.9	0.9	1.3	2.3	1.0	1.2	0.8	1.0	1.0	1.3	1.9	1.4	1.6	1.2	1.0	1.7
YMR316W	1.25	6.4	6.9	1.3	0.5	1.3	2.9	1.9	1.5	3.0	2.1	1.6	2.0	0.7	1.1	1.9	1.1	2.9	3.2
YNL044W	2.56	3.4	3.1	1.0	2.4	1.2	3.1	1.0	1.1	0.8	0.8	1.8	0.9	0.9	1.2	1.3	2.3	0.9	1.3
YNL074C	0.68	1.3	1.1	0.7	1.0	0.6	2.3	0.9	1.3	2.0	1.5	0.6	1.1	1.7	1.3	1.2	1.8	1.3	0.9
YNL092W	0.16	1.6	1.7	1.3	2.7	1.2	2.3	1.1	0.7	1.5	2.3	0.9	1.6	1.2	0.9	1.8	2.4	1.4	1.3
YNL115C	0.80	2.6	1.6	3.1	1.6	1.0	2.5	0.8	1.1	1.9	2.6	0.8	2.4	9.1	0.8	1.4	1.6	1.8	0.7
YNL156C	1.85	1.9	1.8	2.1	1.8	1.4	2.0	0.9	1.4	1.9	2.4	1.2	1.9	1.3	1.6	1.3	0.9	1.2	1.1
YNL234W	0.49	1.0	1.0	2.6	1.4	1.5	2.5	1.1	1.3	3.3	2.6	1.3	1.2	1.3	1.7	1.8	0.6	1.1	1.1

Gene																		
YNL281W	1.79	0.9	0.9	0.5	1.2	1.2	2.0	0.7	1.6	1.6	2.8	1.2	1.2	0.9	1.7	1.4	2.0	1.3	1.0
YNL305C	1.35	1.6	1.7	2.5	1.6	1.3	2.6	1.1	1.8	2.1	2.9	0.7	1.7	1.1	1.3	1.4	2.7	2.2	0.9
YNR068C	0.24	1.0	1.0	1.4	1.0	1.8	3.7	1.3	1.1	14.4	6.7	1.1	1.8	0.4	1.7	2.6	2.3	1.5	1.2
YOL032W	0.77	1.8	1.7	2.4	0.9	1.3	2.3	1.0	1.4	3.0	4.5	1.5	1.4	2.1	1.4	1.3	2.0	0.8	1.3
YOL036W	0.48	0.9	1.1	1.0	2.0	1.0	2.5	1.0	2.2	2.8	3.1	0.8	1.0	1.2	1.2	0.8	1.3	0.9	0.8
YOL047C	0.19	1.0	1.5	1.3	12.3	1.2	2.0	0.8	0.9	2.3	0.6	1.1	1.3	1.5	1.4	2.5	1.1	1.1	1.4
YOL071W	1.08	2.0	1.3	4.6	0.7	2.5	2.5	1.0	4.3	2.3	4.4	1.6	2.0	1.7	0.9	2.0	1.7	2.0	1.3
YOL082W	0.60	2.5	1.6	2.4	1.0	1.4	2.4	1.0	1.6	2.0	3.4	1.1	2.5	1.8	1.5	2.1	1.6	1.6	1.0
YOL083W	0.41	3.2	1.4	3.8	1.0	1.4	2.3	1.2	1.3	2.3	2.7	1.3	3.1	4.5	1.4	2.8	1.2	2.3	1.1
YOL117W	0.21	1.4	1.3	2.2	1.1	1.7	2.2	0.9	1.0	4.1	1.3	1.1	1.6	2.0	1.7	1.4	0.5	1.1	1.0
YOL131W	0.15	0.9	1.1	0.7	1.4	2.3	3.1	0.9	1.4	8.1	8.4	1.1	1.3	1.1	1.5	1.0	0.6	1.5	1.0
YOL162W	0.26	0.9	1.2	0.9	0.6	1.4	3.8	1.4	4.3	6.8	12.0	1.6	2.0	1.2	0.9	1.4	1.7	1.0	2.0
YOR019W	0.40	2.8	1.7	2.6	0.7	1.4	2.2	1.0	1.7	7.1	3.5	1.1	2.8	1.3	1.4	4.7	0.8	6.9	2.9
YOR197W	1.30	1.5	1.5	1.0	1.7	0.7	2.1	1.0	1.0	0.7	0.8	0.9	0.9	1.3	0.6	1.4	1.1	1.2	0.8
YPL087W	1.49	2.7	2.1	1.8	1.3	1.2	4.4	1.8	2.5	2.2	1.0	1.0	4.2	4.3	0.6	7.3	3.0	1.0	1.0
YPL196W	0.92	2.3	1.4	4.3	0.7	1.6	2.1	0.9	1.7	2.8	10.9	1.2	2.4	2.0	1.5	1.7	1.3	5.1	1.3
YPL206C	1.22	1.9	1.4	1.2	0.8	1.1	2.5	0.8	1.5	1.1	1.7	1.0	1.2	1.8	0.7	1.9	1.4	1.6	1.0
YPL222W	0.26	0.9	1.1	2.2	0.9	1.1	3.0	1.3	1.2	3.4	7.4	0.7	1.1	2.2	1.2	1.3	0.8	2.9	0.9
YPR023C	0.81	1.1	1.0	1.4	0.8	0.9	2.0	0.9	1.7	2.8	4.4	0.9	1.2	1.4	1.1	0.8	1.2	3.5	1.2
YPR151C	0.16	1.4	1.3	2.8	0.7	1.4	2.0	0.9	1.4	9.5	3.0	1.4	4.4	1.6	1.3	4.1	1.5	1.4	2.3
YDL222C	0.50	1.3	0.9	6.5	7.1	1.3	2.2	1.0	2.6	1.0	1.9	0.7	1.0	1.4	1.0	3.9	1.5	2.0	0.9
YEL001C	2.81	1.3	0.7	1.2	3.0	1.3	0.9	1.1	1.2	1.2	2.0	1.2	1.1	1.3	0.9	0.7	1.4	1.1	1.0
YER106W	0.25	0.8	0.8	0.9	6.8	1.5	1.0	0.9	1.0	1.8	0.4	1.2	1.0	1.1	1.6	1.2	1.3	1.0	1.3
YIL023C	0.93	1.0	1.2	1.1	5.6	0.7	1.1	0.9	1.1	1.6	3.5	0.7	1.2	0.9	1.3	1.8	2.1	0.7	1.1
YJR054W	0.52	0.9	0.9	0.6	3.1	1.2	0.4	0.6	0.7	0.6		1.6	0.9	0.7	1.0	0.9	0.3	1.2	0.8
YKL086W	0.28	1.0	0.9	0.6	5.0	2.9	1.3	0.9	0.7	20.5	8.2	1.1	0.7	1.0	0.8	2.6	2.4	0.9	1.0
YKR091W	0.45	1.3	1.6	1.6	6.3	1.9	1.0	1.6	1.1	1.6	1.0	1.3	1.3	1.0	1.6	3.5	0.9	1.1	1.5
YLR194C	0.60	0.9	1.0	0.9	3.6	1.2	4.0	0.8	1.4	1.1	0.9	1.0	1.0	0.9	1.0	3.6	1.3	2.3	2.1
YMR095C	0.23	1.0	1.0	1.0	41.7	2.2	3.4	0.6	2.1	1.4		1.2	1.2	0.7	0.9	1.0	1.6	2.2	1.1
YAL053W	1.60	1.6	1.2	1.1	2.9	0.7	1.1	1.2	2.3	0.9	1.4	0.8	0.7	1.1	0.8	2.1	1.3	2.0	0.9
YDL072C	3.25	2.8	1.6	2.6	2.6	1.8	1.6		1.4	1.5	1.1	0.8	1.8	1.5	1.4	2.1	3.5	1.1	1.3

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YDL204W	1.4	1.9	4.8	3.4	1.0	5.6	3.2	1.1	2.3	2.0	3.2	0.9	3.2	2.4	3.6	8.6	1.8	2.7	0.73
YDR391C	1.2	2.0	1.3	1.6	1.2	2.8	2.0	1.4	1.5	2.7	1.9	1.4	1.8	2.3	3.5	3.0	1.8	2.4	1.05
YIL024C	1.4	1.3	1.1	2.1	1.3	1.0	1.3	1.1	2.2	1.8	0.6	0.7	1.0	1.5	3.1	1.0	1.1	1.0	0.35
YIL117C	2.5	1.2	1.0	3.3	0.8	1.2	1.5	1.8	2.3	3.5	1.8	1.4	1.3	2.6	7.5	1.0	2.6	2.6	1.22
YJL108C	1.2	1.2	1.0	2.2	1.5	0.6	0.6	1.0	0.3	0.7	1.0	0.4	0.5	1.0	4.0	0.6	1.0	0.9	0.40
YJL149W	1.2	1.8	1.5	6.8	0.8	0.7	1.3	1.0	1.5	3.8	1.5	1.1	1.9	1.1	9.0	1.4	0.8	1.2	0.28
YJL186W	0.6	0.9	1.2	0.8	0.7	0.7	0.6	0.6	0.2	0.5	0.6	0.6	0.4	0.8	2.5	1.0	0.7	0.8	1.07
YNL190W	1.0	1.4	2.6	0.9	1.0	0.5	0.8	0.8	1.1	1.1	1.0	1.0	1.3	0.6	2.6	1.3	0.7	0.8	4.72
YNL208W	1.5	3.2	2.9	2.1	1.2	1.4	0.9	1.5	2.3	3.1	2.5	0.8	1.7	1.0	2.6	0.9	1.0	1.0	1.55
YNL300W	0.7	0.3	2.9	1.5	0.9	0.4	0.4	0.9		0.2	0.9	0.8	0.7	0.8	3.3	1.0	1.0	0.8	0.39
YNR064C	0.9	0.6	0.9	1.8	1.5	2.1	0.8	0.9	0.1	2.1	0.7	0.7	1.6	0.8	6.1	1.4	1.1	1.9	2.17
YOR248W	2.4	0.7	2.9	1.3	0.7	0.2	0.3	0.7	2.0	0.4	2.3	0.5	0.4	0.5	8.8	0.3	1.0	0.8	2.47
YPL052W	1.8	1.7	0.4	1.0	1.7	1.9	1.4	1.7	1.7	4.8	1.2	1.1	1.6	3.2	3.3	1.1	1.3	1.5	0.88
YPR079W	1.0	1.8	1.3	1.5	0.9	1.0	2.3	1.1	1.0	2.8	0.8	1.0	1.3	1.3	2.9	1.9	1.4	1.5	0.42
YAR028W	1.2	1.5	0.7	1.2	0.9	3.3	1.8	1.3	1.1	0.9	0.9	0.8	1.4	1.2	0.9	1.5	1.9	2.1	1.40
YDR031W	1.5	1.2	1.7	1.5	1.2	3.6	1.9	1.4	1.3	2.7	1.2	0.9	1.3	2.5	0.8	2.4	1.3	2.5	1.23
YDR486C	1.1	1.1	1.2	0.9	1.2	2.7	1.8	1.8	1.8	5.8	1.4	1.3	1.7	2.4	1.1	2.6	1.1	1.7	1.18
YER038C	1.2	1.2	0.6	1.2	1.4	2.8	1.5	1.1	1.1	2.5	0.6	0.9	2.2	1.3	0.8	1.6	1.2	1.4	0.51
YGL136C	1.1	1.4	1.2	1.1	1.0	3.1	0.7	1.1	0.7	1.0	1.4	1.1	1.1	2.3	0.9	1.4	1.3	1.1	0.64
YGR146C	1.6	2.0	0.7	2.0	0.9	4.1	2.7	1.4	1.3	3.8	0.9	1.4	1.7	1.3	1.4	1.8	1.3	0.9	0.75
YJL020C	0.7	1.2	0.8	0.8	1.0	2.1	1.3	0.6	0.9	1.0	0.6	0.7	1.6	1.2	1.4	0.8	2.0	1.3	0.95
YLR031W	1.3	1.0	0.7	1.3	1.3	3.0	1.5	0.9	1.5	1.4	0.7	1.0	1.6	1.5	0.7	1.6	1.2	1.2	0.30
YLR205C	1.2	5.1	0.7	1.3	1.3	4.4	9.0	1.7	1.8	5.7	0.4	1.3	1.4	2.4	2.5	2.3	2.0	1.4	0.29
YMR140W	1.0	0.9	1.2	0.7	1.1	17.1	4.3	0.8	0.2	2.3	0.7	0.9	1.6	1.2	1.4	2.8	1.4	2.0	0.54
YMR195W	1.7	3.1	0.7	2.2	1.8	2.6	1.1	1.0	2.1	0.7	1.1	0.9	1.6	1.3	0.6	2.5	1.6	2.2	1.28
YOR215C	1.5	1.3	3.3	1.8	1.2	2.6	2.6	1.7	1.1	1.3	1.6	1.1	1.7	1.7	0.8	3.3	1.3	2.9	2.08
YOR382W	0.7	7.6	4.9	0.5	1.2	13.1	28.4	1.3	2.8	12.8	2.5	2.8	1.7	0.4	2.1	4.3	1.9	1.9	0.79
YPL054W	4.2	5.3	4.9	3.1	1.1	2.3	1.8	1.7	1.9	9.2	1.9	1.3	1.5	1.4	1.0	1.3	1.5	1.4	0.25
YPR127W	1.1	1.4	1.0	1.6	1.1	3.2	1.7	1.5	1.2	2.4	1.6	0.9	1.3	1.4	0.4	2.4	1.3	1.2	0.65
YAR027W	1.8	1.0	1.3	1.4	1.2	2.3	2.2	1.3	2.3	1.7	1.7	1.2	2.6	1.3	1.2	2.8	2.0	4.7	2.15
YBL057C	1.1	0.9	0.6	1.0	1.3	2.2	1.1	1.4	1.6	1.2	0.9	1.0	1.0	1.6	1.0	1.1	1.2	1.2	1.88

Gene																			
YBR116C	0.9	4.8	2.4	2.3	1.1	2.8	1.5	1.1	9.0	8.7	3.1	1.1	2.0	2.7	1.7	9.9	0.9	1.0	0.45
YBR147W	2.2	1.1	1.5	3.2	1.2	2.2	1.2	1.9	0.9	3.6	4.0	1.3	1.2	1.1	2.1	6.0	1.3	1.9	0.63
YBR168W	0.9	0.8	1.0	1.3	1.6	3.5	1.6	1.0	1.1	1.7	0.8	0.9	1.9	1.8	0.9	1.0	1.1	1.5	0.56
YBR246W	1.0	0.8	1.7	0.6	1.1	3.1	1.1	0.9	0.5	0.9	0.8	0.9	1.1	1.3	0.9	1.8	1.4	1.7	0.82
YBR273C	0.8	0.6	0.6	1.3	1.9	2.2	1.4	1.4	2.2	2.0	0.6	0.8	2.1	0.9	0.8	0.9	1.4	1.4	1.33
YDR003W	2.0	2.4	1.6	1.5	1.8	1.8	1.8	1.1	6.6	3.6	1.8	0.8	1.5	1.2	1.0	1.8	1.1	2.0	0.95
YDR340W	1.2	1.4	0.7	0.8	1.1	1.9	2.3	1.3	1.4	2.4	1.4	0.9	1.3	2.0	1.4	1.0	1.3	1.6	1.90
YDR357C	1.3	1.5	0.3	1.3	2.0	1.9	2.2	1.7	1.0	0.9	1.1	0.6	1.0	1.4	0.5	2.2	1.1	1.7	0.73
YDR396W	0.7	1.3	0.6	0.7	1.4	2.0	1.5	1.4	0.3	1.2	1.0	1.2	0.6	1.4	0.9	1.3	1.2	1.3	0.63
YDR434W	0.8	0.8	1.5	1.2	1.0	2.2	1.4	0.9	0.8	1.2	0.8	0.9	1.2	0.9	1.3	0.8	1.6	1.5	1.53
YDR482C	1.1	0.9	0.7	1.1	1.5	1.7	1.2	1.0	0.9	0.8	0.8	0.8	1.1	1.0	0.5	1.7	1.1	1.2	0.85
YDR520C	0.9	2.1	0.9	0.6	1.3	2.3	1.2	1.0	0.8	0.7	0.6	1.2	1.4	1.0	1.3	0.9	0.6	1.0	0.46
YDR534C	0.8	4.8	1.8	0.9	1.0	2.1	9.7	1.0	0.6	7.5	1.7	1.5	1.8	0.7	4.2	1.0	1.2	1.0	0.34
YDR539W	0.7	2.0	1.1	1.0	1.8	2.1	2.3	1.3	0.7	1.2	1.3	1.2	1.3	1.1	1.5	1.6	1.3	1.4	0.61
YER044C	1.2	1.0	2.1	1.3	1.8	3.0	1.8	0.9	0.3	0.7	1.7	0.7	0.9	1.4	0.7	3.0	1.5	2.1	1.62
YER067W	4.0	1.9	5.2	6.0	1.1	2.1	4.9	2.1	1.8	3.8	2.2	1.1	1.2	1.7	0.5	3.5	1.2	3.0	1.57
YER080W	0.8	0.8	1.5	0.5	1.1	5.3	3.0	1.4	4.0	2.7	1.2	0.9	1.8	1.1	0.8	1.9	1.5	1.3	0.55
YGL113W	0.7	0.9	0.9	0.4	1.5	2.1	0.9	0.9	0.7	0.8	0.7	0.8	1.2	0.9	1.0	1.0	1.5	0.9	0.35
YGL242C	0.8	0.9	0.6	0.8	1.4	1.9	2.0	1.5	0.9	1.3	1.4	0.9	1.6	1.6	1.2	1.1	1.8	1.4	1.32
YGR052W	1.6	0.8	3.9	4.6	1.4	2.6	0.8	1.1	0.6	1.7	0.6	0.7	1.5	1.3	0.6	7.6	1.0	4.0	0.48
YGR106C	1.2	0.8	1.9	1.3	0.9	2.0	1.1	1.0	0.7	1.0	1.2	1.1	1.0	1.2	0.9	1.1	1.1	1.7	4.60
YGR111W	1.1	2.0	1.0	1.7	1.0	2.4	1.8	1.8	3.3	2.5	1.6	0.9	2.2	1.5	0.9	2.2	0.9	2.1	0.79
YHL023C	0.7	0.6	1.3	0.7	1.1	1.8	1.0	1.0	1.3	1.1	1.0	1.1	1.9	1.0	1.0	1.1	1.9	0.9	0.32
YHL048W	1.3	1.6	2.8	1.3	1.1	3.7	2.3	1.0	0.8	1.2	0.9	1.1	1.7	1.0	2.3	2.5	1.2	3.2	4.10
YIL007C	1.2	1.0	1.1	1.0	1.4	2.0	1.3	1.2	1.1	1.4	1.2	1.0	1.1	1.7	1.1	1.9	1.9	1.5	0.69
YIR016W	1.1	1.1	1.4	1.6	1.2	2.3	1.7	1.2	1.4	1.3	1.4	1.3	1.6	1.3	1.0	2.7	1.4	2.0	0.67
YIR043C	1.2	1.6	2.2	1.8	1.3	2.4	2.2	1.0	0.8	1.3	1.4	1.3	2.0	1.4	2.5	2.6	0.9	2.5	3.90
YJL012C	0.7	0.6	1.6	0.7	1.5	1.9	0.5	1.0	0.6	1.0	0.7	1.2	1.3	1.0	1.1	0.3	1.4	0.8	1.77
YJL083W	0.9	1.3	0.8	0.9	1.1	2.8	0.7	0.7	0.0	0.4	0.3	0.9	0.8	1.1	0.9	0.6	1.3	1.0	0.34
YJL131C	0.9	0.8	0.5	1.1	1.7	2.2	1.9	1.2	0.5	1.0	0.3	0.8	1.8	1.5	1.0	2.2	1.3	1.2	0.54
YJR061W	1.0	2.1	1.0	0.7	1.1	2.0	0.9	1.9	1.6	1.4	0.8	0.9	0.8	1.5	1.6	1.1	1.3	1.1	0.34

YJR161C	1.2	2.0	2.8	1.8	0.8	2.2	2.6	1.0	0.5	1.2	1.7	1.2	2.1	1.0	2.9	2.6	2.1	3.4	3.62
YKL175W	0.7	1.1	2.1	0.9	1.4	2.2	1.3	0.9	1.1	1.9	0.8	0.9	1.7	1.0	1.6	1.1	0.9	1.0	1.71
YKR070W	1.3	0.8	1.4	1.4	1.1	2.2	1.4	1.3	3.4	2.0	1.6	0.9	1.7	1.2	0.8	2.1	1.0	1.4	0.99
YLL023C	0.7	1.3	5.9	0.9	1.0	2.6	1.5	0.5	1.1	1.5	1.6	1.2	1.6	1.1	2.5	2.8	1.6	1.4	1.66
YLR023C	1.3	1.5	0.9	1.2	1.1	2.6	1.2	0.9	0.7	1.7	1.1	0.6	1.0	1.1	0.9	0.8	0.7	0.8	0.92
YLR225C	0.8	0.7	0.4	0.7	1.6	2.4	1.6	1.2	1.0	1.2	0.8	1.2	1.3	1.4	1.6	0.8	1.2	1.2	1.41
YLR241W	0.9	1.7	1.6	2.1	0.8	1.7	0.9	1.0	1.8	1.5	0.7	0.9	2.0	0.9	2.4	1.1	1.4	1.6	1.03
YLR252W	1.3	1.3	4.6	3.0	1.0	2.8	1.6	1.1	3.1	1.4	2.5	0.7	1.3	1.3	0.9	2.7	2.2	2.9	0.96
YLR270W	1.2	1.1	2.3	1.2	1.1	3.5	3.9	1.1	3.3	2.1	2.8	1.1	2.1	1.3	1.4	2.6	1.4	2.3	1.00
YML030W	1.3	0.8	0.8	1.4	1.9	3.0	2.1	1.4	0.8	0.8	1.2	0.7	1.0	1.3	0.6	2.7	1.2	1.3	1.35
YMR148W	1.0	1.0	1.6	0.9	1.2	2.9	0.8	0.6	1.0	0.8	1.0	0.5	1.0	1.0	0.7	1.4	1.1	0.9	0.28
YMR181C	1.3	1.6	1.8	1.1	1.2	2.1	2.0	0.9	1.9	1.4	1.7	1.4	2.8	2.0	1.4	2.8	1.1	2.0	0.79
YMR298W	1.3	1.3	2.9	0.8	1.5	2.3	1.3	1.1	2.4	2.6	1.7	0.9	1.0	1.2	2.0	1.7	1.4	1.6	1.37
YNL011C	1.1	1.5	0.8	0.9	0.9	2.9	2.9	1.5	3.8	1.6	1.4	0.6	1.0	1.5	0.8	3.1	1.2	1.8	0.68
YOL129W	1.0	1.1	2.5	1.2	1.6	2.2	1.6	0.7	1.2	1.2	0.7	0.8	1.2	1.2	1.0	1.9	2.6	2.4	2.61
YOR042W	0.6	1.4	0.7	0.7	1.3	2.1	1.1	0.9	2.1	1.2	0.9	0.8	1.8	1.5	1.1	1.1	1.4	1.1	0.54
YOR052C	1.5	1.3	0.5	2.4	2.3	2.4	1.4	1.4	1.4	1.3	0.8	1.0	1.3	1.2	1.2	1.3	1.2	2.3	2.64
YOR137C	1.1	1.0	0.9	1.2	1.3	2.1	1.6	0.6	0.7	0.7	0.9	0.8	2.6	1.6	1.4	1.0	1.6	1.5	0.78
YPL156C	1.4	1.4	0.9	2.9	1.2	2.4	3.2	1.2	0.5	2.8	0.9	1.5	1.6	0.9	0.8	2.4	1.6	1.9	0.70
YPL186C	1.6	1.7	1.4	4.5	1.3	3.2	3.2	1.9	2.4	1.5	3.7	1.0	1.7	1.6	0.7	6.2	1.2	2.9	0.60
YPL216W	0.7	0.8	1.3	0.9	0.9	1.8	0.8	0.9	1.8	1.9	0.9	0.9	1.4	2.0	1.0	1.1	1.1	0.9	0.47
YPR098C	1.6	2.6	1.7	1.9	2.0	3.0	2.9	1.1	1.4	1.7	1.9	0.9	1.1	1.2	0.9	2.9	2.2	2.2	1.10
YFL062W	1.3	2.7	1.7	2.4	1.6	1.8	3.5	1.1	0.6	1.2	2.2	1.1	1.2	1.8	1.6	2.7	2.1	3.0	3.43
YJL217W	0.6	0.7	3.1	2.5	0.7	1.7	3.2	4.5	0.7	1.7	4.6	0.7	1.6	1.1	0.8	5.1	1.4	2.5	2.19
YLR126C	0.9	1.5	0.4	0.8	1.3	1.7	3.4	1.8	1.3	3.4	1.3	1.4	1.4	0.7	1.4	1.4	1.3	1.2	0.61
YNL249C	1.3	1.7	0.3	1.5	1.2	0.7	2.3	1.7	2.6	1.7	1.4	1.0	1.3	1.4	0.9	1.3	1.1	1.1	0.56
YNL336W	1.2	1.0	3.4	1.3	1.3	1.4	2.5	0.9	0.7	1.9	0.8	1.1	1.2	1.3	1.9	2.8	2.0	3.1	3.74
YBR074W	0.7	1.3	0.9	0.8	1.3	1.5	2.2	0.7	0.4	0.5	0.5	1.0	2.0	1.1	0.8	1.3	1.4	1.0	0.52
YDL248W	1.1	1.7	2.8	1.7	1.5	2.0	2.5	1.1	0.9	1.4	1.4	1.2	1.8	1.5	1.8	1.9	1.6	2.4	4.35
YDR105C	0.7	1.1	2.3	1.0	0.8	1.4	2.1	0.8	2.3	1.7	1.4	0.9	1.8	0.9	0.9	1.4	1.1	1.4	1.09
YEL075C	1.1	1.1	0.7	1.0	1.1	1.4	1.9	0.7	0.6	0.7	0.7	1.1	1.7	1.1	0.8	1.2	1.4	1.1	1.19

Gene																			
YER046W	1.3	1.9	0.5	1.1	1.6	1.8	2.6	1.5	1.5	1.7	1.1	1.0	1.0	1.4	0.7	2.7	2.0	1.9	0.53
YER050C	1.3	0.9	0.5	2.3	2.2	1.0	2.2	1.5	1.4	1.6	1.4	0.7	1.0	2.1	1.0	2.1	1.0	1.8	1.40
YGL250W	1.1	1.4	1.9	1.8	1.6	1.4	2.0	1.1	1.5	1.2	2.4	0.7	1.2	1.0	1.1	2.3	1.2	1.9	0.45
YGR042W	1.5	1.1	1.2	2.0	1.5	2.2	2.2	1.8	1.3	3.2	1.6	1.1	1.6	2.2	1.4	2.6	1.3	1.9	0.79
YGR053C	1.3	0.7	0.6	2.7	2.1	1.9	3.4	1.5	4.5	2.2	1.6	0.7	1.2	1.7	0.7	2.7	1.5	2.4	0.39
YGR066C	1.6	2.5	1.3	2.5	1.2	1.7	2.1	1.3	2.3	5.0	2.6	0.8	1.2	1.9	0.7	2.6	1.0	1.1	0.17
YGR247W	0.8	1.1	0.8	1.0	1.0	0.9	1.8	0.9	1.1	1.1	1.1	0.6	0.8	1.0	0.4	1.2	1.0	1.0	0.45
YGR295C	1.0	1.6	2.8	2.0	0.9	1.9	2.8	1.1	0.5	1.2	1.1	1.1	1.9	1.0	2.4	2.4	1.6	2.8	4.78
YHL044W	0.9	1.3	1.5	1.4	0.7	1.9	2.0	1.4	1.1	1.9	0.7	1.2	1.6	1.7	1.1	3.9	0.8	1.2	0.45
YHR145C	1.5	1.6	0.6	0.9	1.4	1.3	2.1	1.6	0.8	2.4	2.0	0.9	1.5	1.8	1.3	1.1	1.3	1.1	1.70
YIL058W	2.0	0.9	1.4	0.5	1.3	1.4	2.2	0.8	1.1	1.0	0.0	0.6	1.0	2.0	0.9	2.1	1.4	1.3	0.39
YIL065C	1.0	1.3	0.8	1.6	1.9	1.6	2.0	1.4	3.8	2.1	1.1	0.9	1.8	1.7	0.8	2.4	2.1	1.4	0.94
YIL083C	0.8	1.0	0.9	0.8	1.2	1.4	2.2	1.0	1.0	1.1	1.2	1.0	1.0	1.0	0.9	1.4	0.9	1.1	0.76
YJL185C	0.9	1.0	1.9	1.6	1.0	1.4	2.3	1.0	0.9	1.2	1.2	0.8	1.0	1.4	1.6	2.3	1.0	1.1	0.30
YJL213W	0.8	1.1	0.2	1.2	1.5	2.6	2.1	1.2	1.3	1.5	0.7	0.7	1.0	0.8	2.8	3.6	2.1	2.8	0.33
YKR020W	1.1	1.8	0.9	1.6	1.0	4.5	2.2	1.5	1.9	2.8	1.0	0.8	1.7	1.4	1.2	2.5	1.3	2.0	0.44
YLL025W	0.8	1.3	1.8	0.8	1.1	1.5	1.9	1.0	1.5	2.0	1.4	1.0	1.3	1.0	1.2	1.7	1.0	0.9	0.40
YLR108C	3.2	1.8	4.7	1.8	1.9	1.3	2.6	2.0	7.4	10.4	2.6	0.8	1.9	3.4	1.2	2.3	1.0	1.5	0.39
YLR290C	1.3	1.2	0.8	1.9	2.1	1.7	2.3	1.1	1.2	1.1	1.5	0.8	1.0	1.3	0.8	3.2	1.3	2.4	1.49
YML068W	1.0	3.7	1.0	1.2	1.0	0.9	4.1	1.3	1.3	1.4	0.6	0.4	0.8	1.1	1.1	1.9	1.0	1.3	0.41
YMR178W	1.6	1.0	0.8	0.9	1.1	1.6	2.1	1.6	1.6	1.6	1.0	0.9	1.0	1.2	0.9	2.1	1.1	2.3	1.36
YNL122C	1.2	0.9	1.2	1.3	1.6	1.8	2.1	1.4	1.0	1.2	1.3	0.7	1.0	1.2	0.6	1.8	1.0	1.4	1.07
YNL285W	1.1	1.2	0.6	1.1	1.4	0.8	2.3	1.2	1.4	1.7	1.2	0.6	1.1	1.8	0.9	1.3	1.2	1.3	0.43
YNL293W	1.3	0.8	0.8	1.8	1.3	0.9	2.1	1.0	1.6	2.4	0.8	0.7	1.4	1.1	1.2	2.1	1.0	1.4	0.58
YNR061C	0.8	1.1	2.5	0.8	1.0	1.3	2.6	0.8	0.8	0.9	1.2	0.9	1.1	1.3	0.9	1.1	1.6	1.1	1.52
YOR220W	1.5	1.4	1.7	2.4	1.3	1.2	2.1	0.9	1.8	2.5	1.2	1.2	2.9	0.8	0.7	2.0	3.5	3.4	1.44
YPR077C	1.4	1.4	1.2	2.7	1.4	1.2	2.0	1.5	0.6	2.5	0.8	1.0	0.8	1.6	2.9	0.6	1.4	1.2	0.24
YPR147C	0.9	0.8	1.1	1.4	1.6	2.1	1.8	1.1	1.2	2.4	1.3	0.9	1.6	1.1	1.4	1.9	1.1	1.3	1.18
YEL041W	1.4	1.4	0.8	2.5	0.8	1.2	1.9	1.9	2.4	3.6	3.5	0.9	1.9	2.0	1.4	1.9	1.5	1.9	0.39
YKL187C	0.9	1.0	1.4	1.5	0.8	0.8	0.7	1.1	5.2	8.6	3.3	0.9	1.4	1.6	1.2	4.8	0.7	1.2	0.36
YBR285W	1.6	1.6	0.9	6.2	1.3	2.2	1.5	1.0	4.0	3.1	4.6	0.5	0.9	1.6	0.4	7.8	2.5	2.3	0.27

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YBR292C	0.30	0.9	0.9	1.0	1.0	1.1	0.7	0.4	1.8	1.3	2.1	0.8	0.7	0.8	1.0	0.6	1.2	4.3	0.8
YDL123W	0.52	1.0	1.1	1.5	3.3	0.9	1.5	1.1	4.6	2.0	2.0	0.8	1.0	0.7	0.8	1.4	3.7	1.3	1.0
YDR056C	1.83	2.0	1.2	2.5	1.1	2.3	1.0	1.2	2.3	2.3	1.3	1.4	1.4	1.0	0.9	2.0	2.0	1.3	1.4
YDR132C	0.40	1.3	1.0	1.2	1.2	1.4	1.5	0.9	3.3	7.3	5.9	2.3	1.7	1.9	1.2	2.1	1.4	1.6	3.7
YDR154C	2.69	2.0	1.5	1.3	1.8	1.0	2.6	1.0	3.2	1.2	1.5	1.1	0.9	1.5	0.8	1.7	2.5	2.1	1.0
YDR295C	0.49	1.0	0.8	0.6	1.4	1.1	1.8	0.7	1.9	1.3	2.6	1.3	0.8	1.0	0.9	1.0	0.6	1.0	0.8
YDR494W	1.39	1.3	1.1	1.9	0.6	1.0	1.0	0.8	1.6	0.9	1.2	1.2	1.7	1.4	1.3	1.3	0.2	0.9	0.9
YEL072W	0.39	1.1	0.8	1.5	0.5	2.0	1.0	0.9	1.7	4.3	4.7	1.6	1.3	0.6	1.5	1.8	1.6	3.5	3.2
YER045C	0.34	1.1	1.1	1.6	1.4	1.3	1.2	0.8	2.3	1.5	2.0	1.4	1.1	0.8	0.9	1.0	1.2	2.1	1.6
YER181C	0.42	1.1	0.7	0.7	0.7	1.0	1.3	0.6	0.1	0.8		0.9	1.0	0.7	1.0	2.2	1.7	0.4	1.1
YGL114W	0.60	0.8	0.9	1.4	1.2	1.1	1.2	0.6	3.2	5.6	2.7	1.1	1.0	0.7	1.3	1.3	3.6	0.8	1.5
YGL193C	0.62	0.9	1.1	1.7	1.0	1.0	1.1	0.7	2.1	1.0	0.8	0.7	1.0	0.3	0.7	1.4	0.9	0.9	1.1
YGL204C	0.38	0.9	0.9	1.1	0.8	1.8	1.4	0.8	1.9	0.9	1.0	0.8	1.3	0.8	0.7	1.2	1.2	2.2	0.9
YGL259W	0.49	0.9	0.9	4.1	1.3	1.1	1.9	1.1	2.7	2.2	2.6	1.3	1.6	0.7	1.1	1.5	1.4	1.6	1.1
YIL060W	1.22	1.6	1.2	1.1	1.3	0.9	0.6	0.7	1.9	3.0	0.9	1.8	0.9	1.1	1.2	1.0	0.8	2.3	1.0
YJL036W	0.88	1.9	1.4	2.1	1.1	1.5	2.2	1.2	1.7	3.5	6.6	1.5	1.5	1.5	0.7	1.6	0.6	1.0	1.3
YJR085C	2.19	1.0	1.4	2.0	0.5	1.9	1.9	1.1	2.9	2.6	3.7	0.9	1.4	0.6	0.6	4.5	2.8	1.9	1.0
YKR071C	1.05	0.8	0.9	0.8	0.7	1.6	1.5	0.8	2.3	4.9	4.7	2.1	0.9	0.6	1.9	1.1	1.0	1.6	3.6
YLR145W	0.62	0.9	1.0	2.5	1.0	1.6	0.7	0.8	2.4	1.2	1.9	1.1	0.9	0.6	1.1	1.5	0.6	1.1	0.9
YLR156W	0.31	0.9	1.1	1.7	1.0	1.0	1.9	0.8	1.9	2.2	1.1	1.0	1.3	0.9	0.8	0.8	0.7	1.0	1.3
YLR280C	0.19	1.1	1.2	1.2	0.6	0.5	1.6	0.8	2.1	1.3	0.5	1.0	1.5	0.4	1.3	0.6	0.4	1.4	0.6
YLR311C	0.33	1.6	1.3	1.9	0.5	1.6	0.9	0.9	7.8	3.0	0.9	1.0	1.1	1.1	0.9	2.9	2.8	1.9	1.5
YMR034C	0.43	0.7	1.8	1.3	1.7	1.4	1.8	0.7	2.1	2.7	0.7	1.2	1.9	0.7	1.3	6.5	1.0	1.3	1.5
YNL240C	0.37	1.0	0.8	0.8	1.4	0.8	1.1	0.6	3.4	3.1	5.4	0.9	0.7	0.8	0.8	0.6	0.8	0.8	0.8
YNL260C	0.75	0.8	0.9	1.2	0.7	1.4	0.7	0.6	2.5	2.0	3.8	1.2	1.1	0.7	1.6	1.0	0.5	1.8	1.7
YNR074C	0.66	0.9	0.9	0.9	0.8	1.7	1.5	0.6	2.7	3.0	3.9	1.5	1.4	1.6	1.2	1.4	3.1	1.7	1.3
YOL084W	0.28	1.1	1.3	6.6	1.6	0.9	6.4	1.7	6.1	3.4	2.6	1.0	0.8	1.0	0.6	3.6	1.6	1.4	1.0
YOL159C	0.61	1.6	1.8	2.3	1.1	1.8	1.4	1.2	6.6	2.4	1.1	1.2	2.1	1.0	0.9	2.0	1.7	2.4	1.9
YOR228C	0.44	0.7	1.0	3.4	0.6	1.0	1.1	0.9	2.8	1.1	1.4	0.7	1.2	1.0	1.2	1.4	1.8	1.1	1.3
YOR255W	0.19	1.0	1.0	1.2	4.9	1.3	1.6	0.7	2.0	0.8	0.3	1.2	0.9	0.5	1.0	1.5	1.0	2.7	2.5
YBR047W	0.25	1.0	1.3	1.1	0.8	1.0	1.7	0.8	3.4	10.0	11.0	2.2		1.1	0.9	1.5	1.1	2.4	2.7

ORF																			
YER124C	2.22	1.1	0.9	1.5	0.5	0.5	0.7	0.6	1.5	1.4	0.4	1.8	1.0	2.1	1.4	1.2	0.7	17.3	0.5
YKR007W	0.73	0.9	0.8	1.1	1.2	1.2	0.9	0.8	1.3	1.8	1.1	1.9	1.5	1.6	1.1	0.9	0.8	0.9	0.8
YOR007C	2.26	0.8	1.2	1.0	1.3	0.8	0.7	0.7	1.8	2.5	5.6	2.1	0.4	1.2	1.1	0.9	1.4	3.3	1.1
YBL065W	0.15	0.9	1.1	0.9	3.1	1.9	1.8	0.7	1.3	4.2	20.8	1.9	1.0	0.7	1.1	3.5	1.0	2.9	1.2
YDL113C	0.58	1.5	1.2	1.7	1.2	1.2	1.5	1.3	1.1	3.0	3.8	1.7	2.2	1.2	1.0	1.2	1.2	1.4	1.0
YDR018C	0.22	1.2	0.9	2.6	1.0	1.7	1.8	1.1	1.4	4.4	2.3	1.4	1.4	1.5	1.3	2.6	3.3	1.3	1.5
YDR202C	0.79	1.6	1.0	2.8	0.5	2.0	1.2	0.8	1.3	2.4	4.8	1.4	1.6	1.7	1.3	1.3	1.1	1.2	1.1
YDR223W	0.29	1.0	0.9	3.5	1.2	1.2	1.5	1.0	1.4	4.6	2.7	1.0	1.0	1.4	1.1	1.9	2.0	4.6	1.3
YDR350C	0.53	1.2	1.4	1.3	1.6	1.1	1.0	0.9	0.9	2.5	2.8	0.9	1.5	1.3	1.3	1.3	0.4	1.5	0.9
YDR374C	0.36	1.0	1.0	1.3	2.0	4.0	2.5	1.0	1.4	3.9	10.4	1.8	0.9	1.1	1.3	0.8	1.5	2.9	1.9
YDR512C	0.82	2.0	1.3	3.0	1.1	2.7	1.9	1.1	1.8	4.0	3.6	1.6	2.0	2.1	0.7	2.3	2.5	4.3	1.8
YFR017C	0.49	1.1	0.9	3.7	1.4	1.3	1.7	1.8	3.1	7.1	1.0	0.8	1.3	1.2	1.2	4.4	4.4	1.4	1.1
YGL046W	0.42	1.3	1.5	1.2	2.0	0.9	1.6	1.1	1.5	4.5	0.8	1.2	1.0	1.2	0.9	1.4	1.5	1.2	1.6
YGL067W	0.63	1.1	0.9	1.0	0.7	1.6	3.7	0.9	1.7	2.3	1.0	1.2	1.1	1.0	0.6	1.1	1.7	1.3	1.6
YGL098W	0.77	1.5	1.1	1.3	0.7	1.1	0.8	0.8	1.3	2.4	1.2	1.3	1.2	0.7	0.8	1.7	0.5	0.8	1.2
YGL117W	1.05	1.1	2.1	0.6	1.4	2.0	1.4	1.5	1.4	5.8	0.5	1.9	1.3	0.9	0.9	2.0	0.5	0.6	2.3
YGL146C	0.43	1.0	1.0	2.2	1.1	1.2	1.1	0.9	1.3	3.2	0.9	1.2	1.3	1.2	1.3	3.3	1.1	1.0	0.9
YGR011W	0.40	1.0	0.9	1.6	1.8	3.9	1.6	0.8	2.3	9.4	7.4	1.4	1.8	1.1	0.9	1.3	1.0	1.5	1.1
YGR153W	0.39	1.7	1.3	1.1	1.3	1.9	1.1	0.7	1.0	2.5	2.7	1.8	1.4	0.9	1.6	1.1	1.0	0.9	1.5
YGR223C	0.66	1.8	1.1	1.8	1.2	1.6	1.8	0.8	1.9	3.8	6.2	1.4	1.2	1.2	1.3	1.3	1.5	1.2	1.8
YHR116W	0.60	1.5	0.9	1.9	1.2	1.4	1.9	0.8	0.9	2.7	1.5	1.1	1.8	1.5	1.6	2.1	0.9	1.2	0.9
YIL097W	0.52	1.7	1.1	2.1	1.7	1.4	1.4	1.1	1.4	3.4	4.9	1.7	1.6	2.0	1.2	1.2	1.3	1.0	1.2
YKL133C	0.35	2.4	1.2	3.8	1.6	1.6	1.4	1.3	1.4	5.9	4.1	1.5	3.2	1.7	1.0	2.0	2.4	12.7	1.3
YKL162C	0.25	1.1	0.8	2.0	1.6	1.9	1.1	1.1	1.6	4.7	6.7	1.5	1.4	1.7	1.1	0.9	1.9	1.0	1.3
YLL062C	0.29	0.9	0.9	1.0	1.4	1.7	1.4	0.6	1.7	5.4	14.9	1.8	0.7	0.9	0.8	1.1	4.6	6.7	6.5
YLR247C	0.48	1.3	1.2	1.4	0.7	1.0	1.8	1.0	1.6	2.9	2.5	1.3	1.2	1.2	1.2	1.0	1.0	1.5	0.8
YLR267W	0.24	2.8	1.2	3.6	0.5	2.3	1.5	0.8	1.7	4.6	1.1	1.4	1.4	1.3	1.2	1.4	1.3	1.7	0.9
YMR041C	0.84	0.4	0.8	0.3	0.9	0.6	1.1	1.0	1.6	6.0	6.5	1.4	0.5	0.5	1.1	1.2	1.4	2.8	1.2
YMR253C	0.42	1.4	1.2	1.3	0.7	1.3	1.2	0.5	1.0	2.8	1.5	1.0	2.3	1.7	0.8	1.3	2.0	1.7	0.9
YOR225W	0.26	0.9	0.9	0.6	1.2	2.2	0.6	0.5	1.2	3.3	0.8	0.8	0.8	0.7	1.3	1.0	1.4	2.8	1.1
YPL166W	0.39	1.6	1.1	2.3	—	0.8	1.4	0.8	1.4	3.1	1.5	1.2	1.8	0.7	1.2	1.4	1.4	1.4	1.0

Gene																			
YPL202C	1.1	1.6	1.0	0.7	1.9	1.4	1.6	1.1	1.8	3.5	1.0	0.7	1.1	0.9	1.0	1.2	1.1	1.0	0.56
YBR101C	1.3	2.2	1.7	1.1	1.2	0.8	0.6	1.0	6.9	3.0	1.3	0.7	1.6	0.7	0.5	0.3	0.9	1.0	1.83
YBR269C	1.2	5.7	2.2	1.1	1.3	1.8	1.3	0.8	2.7	2.6	1.2	1.0	1.3	1.4	0.4	1.6	1.5	1.6	0.58
YBR280C	1.2	1.0	2.7	2.0	1.3	1.6	1.7	1.0	5.3	1.9	1.3	1.3	2.8	1.3	1.0	3.2	1.1	1.7	0.33
YDL234C	1.9	0.9	0.5	1.4	1.0	1.1	1.9	1.3	4.6	2.1	1.5	0.9	3.5	0.7	1.0	2.5	2.3	3.6	0.94
YDL242W	1.3	1.3	1.6	1.5	1.3	0.7	1.1	0.5	4.0	4.1	1.3	1.0	1.0	1.0	1.2	1.3	0.9	1.0	0.38
YDR531W	0.8	0.9	0.7	1.0	2.0	1.2	1.6	1.4	2.9	1.5	1.3	0.9	1.4	1.2	0.9	1.2	1.5	1.2	1.32
YFR042W	1.5	1.2	1.9	1.9	1.8	0.8	1.6	1.0	2.8	2.6	1.7	1.1	1.9	1.7	1.4	1.4	1.7	1.7	1.17
YFR046C	1.1	2.3	1.1	1.6	1.2	1.0	1.0	1.5	5.8	1.5	1.0	0.9	1.1	1.4	0.9	1.3	1.2	1.2	0.29
YGL227W	1.0	0.8	0.9	0.7	1.2	1.1	1.2	1.0	2.4	1.9	1.1	0.8	1.0	1.3	0.9	1.5	1.1	1.3	0.59
YGR089W	0.8	0.8	0.9	0.5	1.1	1.2	0.9	0.8	4.0	1.4	0.9	0.7	0.8	1.1	0.8	0.9	0.9	1.1	0.50
YGR134W	1.1	1.5	0.5	1.3	1.3	1.0	1.0	1.5	2.4	1.9	0.9	0.7	1.5	1.1	1.1	0.7	0.9	0.8	0.33
YHR017W	0.8	1.0	1.3	1.3	1.4	1.1	1.5	1.5	2.9	1.7	1.5	1.0	1.2	1.2	0.8	2.5	1.1	1.7	0.90
YIL152W	1.1	1.3	1.0	1.7	1.0	0.8	1.2	1.0	3.1	1.8	0.9	1.1	1.4	1.7	0.9	1.5	1.1	1.0	0.81
YIL164C	1.2	1.2	1.0	1.2	1.0	1.1	2.0	1.2	4.2	3.0	1.0	1.0	1.8	2.0	0.9	2.5	1.4	1.4	0.54
YJR056C	1.0	2.4	0.8	1.2	0.9	0.5	0.9	1.2	3.5	1.4	0.8	0.8	0.9	1.4	1.6	1.3	0.9	1.1	0.44
YJR072C	0.7	2.5	1.0	0.8	1.1	0.7	0.8	1.3	3.1	1.6	0.9	1.0	1.1	1.2	0.6	0.9	0.8	0.8	0.78
YKL034W	0.8	1.4	1.0	0.9	1.1	1.9	1.4	0.7	2.6	3.7	1.2	1.0	1.9	1.0	1.6	1.5	1.3	1.2	0.41
YKR012C	0.7	1.4	1.0	1.0	1.2	1.4	1.0	1.0	3.9	1.2	0.8	0.7	1.5	1.4	1.2	0.9	1.0	0.9	0.61
YLR064W	1.1	1.1	2.9	1.3	0.8	1.2	0.8	1.0	3.3	2.1	1.6	0.7	1.6	1.4	1.5	1.0	0.9	1.0	1.49
YLR364W	3.3	8.0	1.2	1.5	1.3	1.0	1.0	1.1	8.3	1.3	1.5	0.7	1.0	3.0	1.9	1.0	1.0	0.9	0.37
YLR421C	1.1	1.3	0.9	1.2	0.9	2.6	1.5	1.5	4.5	3.3	1.2	0.9	1.6	1.6	1.6	1.9	1.2	1.8	2.07
YML118W	1.5	0.5	0.7	2.7	0.7	0.8	1.5	0.9	6.6	1.6	1.3	0.9	1.7	1.0	2.2	1.6	1.5	1.5	0.26
YMR114C	1.2	1.4	0.5	2.4	1.2	1.2	1.7	1.1	2.5	1.7	1.0	0.9	1.1	1.5	1.2	3.0	1.0	1.3	0.62
YMR115W	1.0	0.6	1.3	1.1	0.9	1.5	1.0	1.2	5.8	2.1	1.1	1.0	1.3	1.3	1.2	1.1	1.0	1.2	0.61
YMR258C	0.9	1.4	1.2	1.1	0.7	1.2	1.5	0.9	2.3	1.8	1.4	0.9	1.6	1.0	0.6	1.2	1.1	1.3	0.60
YNL181W	1.2	1.2	0.6	1.2	1.4	1.6	0.9	1.9	5.3	2.8	1.2	0.8	1.8	1.9	1.0	1.0	0.8	1.3	0.86
YNL191W	1.5	5.1	4.7	0.7	0.9	0.6	3.0	1.2	3.9	3.2	1.0	0.5	0.6	1.0	1.0	0.6	0.5	0.6	0.45
YNL212W	1.1	1.1	1.1	0.5	0.9	0.8	1.3	1.3	4.6	2.3	1.3	0.8	1.3	1.0	0.9	1.3	0.9	1.2	0.67
YNL265C	1.0	1.3	0.5	1.3	0.9	1.9	1.5	1.4	5.0	2.6	0.9	0.8	2.0	1.9	0.6	1.7	0.9	1.8	0.85
YOR088W	0.7	0.9	1.7	0.9	1.2	0.7	0.3	0.7	2.5	1.3	0.8	0.6	0.4	0.4	0.8	0.4	0.7	0.7	3.56

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YOR155C	0.46	0.9	0.8		0.9	1.5		0.5	1.6	1.7	3.6	0.8	0.7	0.7	1.4	1.0	1.7	1.2	0.8
YPL151C	0.51	1.0	0.8	0.9	1.8	0.9	1.4	0.8	0.9	2.0	4.2	1.0	1.0	2.5	1.0	1.2	1.2	0.8	1.0
YPL249C	0.36	1.2	0.8	1.0	1.0	1.0	1.8	0.9	0.9	1.2	3.0	1.0	1.2	1.4	0.8	0.6	1.1	0.9	0.8
YPL260W	0.82	1.3	0.8	1.2	1.3	1.1	1.4	0.8	1.0	2.1	2.6	1.1	1.8	0.5	0.8	0.8	1.4	3.9	0.9
YPR061C	0.40	0.9	1.1	2.7	0.4	1.7	1.1	0.8	1.6	1.9	3.2	1.2	0.8	0.7	1.4	4.9	1.2	3.2	1.3
YPR093C	0.39	1.1	1.4	1.4	0.8	1.1	1.4	0.9	1.2	2.3	6.6	1.1	1.2	0.7	1.0	1.3	0.7	1.1	1.1
YPR158W	0.96	0.7	0.9	0.6	0.9	1.1	1.6	0.6	1.5	3.5	5.0	1.2	0.9	1.5	1.6	0.9	3.7	1.5	1.5
YPR169W	0.86	1.1	1.1	1.4	0.9	1.0	1.0	0.5	1.0	1.4	3.5	1.0	0.8	1.1	1.0	0.6	0.5	0.9	0.9
YPR174C	0.55	0.9	1.4	0.4	1.2	0.9	1.4	1.1	0.7	1.0	3.2	1.2	1.2	0.6	1.3	0.6	0.8	0.9	0.8
YAL014C	0.56	1.1	1.1	0.9	2.3	1.8	1.5	1.2	1.7	2.0	3.1	1.2	1.3	1.1	0.8	1.2	1.4	1.6	1.0
YAL017W	0.79	1.2	1.0	1.3	1.0	1.1	2.2	1.0	0.7	1.6	1.9	0.6	3.4	1.5	1.0	1.2	2.3	1.4	0.6
YAL049C	1.13	1.8	1.6	2.9	1.4	2.0	1.6	1.1	1.0	1.4	3.0	1.4	1.0	1.8	0.7	1.0	1.7	2.0	1.0
YBR013C	0.68	1.1	1.4	1.5	1.1	2.5	2.0	1.2	1.2	2.2	2.2	1.4	1.1		0.9	1.4	1.8	2.7	1.1
YBR051W	0.40	0.8	1.1	1.2	0.8	1.0	1.2	0.7	0.1	1.5	1.5	1.1	1.6	1.6	1.1	0.3	1.5	0.8	1.2
YBR063C	0.38	1.2	1.2	1.0	1.6	1.7	1.7	1.1	0.6	1.6	2.2	1.3	1.0	1.9	1.2	0.6	0.4	0.8	0.8
YBR129C	1.25	1.5	1.0	1.7	0.9	1.6	1.3	1.0	1.4	1.4	2.3	1.4	1.1	1.0	1.2	1.0	0.6	0.8	1.1
YBR255W	0.27	1.0	1.0	1.5	1.0	1.1	1.4	0.7	1.5	1.5	1.8	1.8	0.6		1.2	0.7	0.4	1.6	1.1
YBR281C	0.44	0.8	0.7	0.8	1.0	0.9	1.2	0.5	1.4	1.4	1.8	1.2	1.0	1.0	0.8	0.5	3.0	1.1	0.8
YCL044C	0.21	0.6	0.9	0.8	4.4	1.0	1.7	0.9	1.1	4.1	3.3	1.0	2.0	2.0	1.1	0.6	2.4	1.4	0.8
YDL089W	0.45	1.1	1.0	1.3	1.6	1.2	1.9	0.9	2.0	2.5	2.3	1.1	1.6	1.1	1.2	0.9	1.4	1.3	1.1
YDL173W	1.19	1.8	1.3	1.3	1.1	2.1	1.7	1.1	1.2	1.6	1.8	1.5	1.5	2.0	1.3	0.8	1.0	1.2	1.0
YDL193W	0.93	1.4	0.9	1.8	1.2	1.1	1.4	1.1	1.1	1.4	2.5	1.6	0.8	1.0	1.1	0.8	1.4	1.5	0.9
YDL233W	0.33	1.4	1.1	0.9	1.3	1.1	1.8	0.9	0.7	1.1	2.1	1.0	1.3	1.5	0.9	3.8	1.0	2.0	0.8
YDR071C	3.08	1.6	0.9	1.2	0.9	2.0	1.3	0.9	1.4	1.6	2.6	1.6	2.8	0.8	1.1	1.3	0.7	1.1	1.4
YDR078C	0.53	1.2	0.9	1.3	0.5	1.8	1.1	0.7	1.1	1.4	2.1	1.4	1.2	0.9	0.9	0.8	3.5	1.6	1.1
YDR109C	0.38	0.9	1.2	1.5	1.7	1.0	1.4	1.0	0.9	1.3	1.9	1.5	1.2	0.9	1.0	1.3	1.0	1.0	0.8
YDR140W	0.78	1.3	1.3	1.9	0.9	3.2	2.0	1.1	1.7	2.5	2.2	1.5	0.9	1.5	0.7	1.8	0.9	1.4	1.7
YDR221W	0.34	1.0	1.1	1.0	1.0	1.0	1.0	0.6	0.7	1.4	2.3	1.0	1.3	1.4	1.1	0.8	0.3	1.3	0.8
YDR271C	0.32	0.9	1.2	0.6	1.3	1.4	1.5	0.7	0.6	0.9	5.4	0.8	0.3	0.7	0.8	1.7	0.7	0.8	1.0
YDR316W	0.69	0.5	0.6	0.3	1.3	0.7	0.6	0.6	1.3	1.0	2.5	1.4	1.1	0.9	1.5	0.9	0.6	0.8	1.0
YDR338C	0.40	1.0	0.9	0.8	0.8	1.0	1.3	0.8	1.9	1.7	2.7	0.9			0.7	1.0	1.4	1.3	1.1

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YDR421W	0.42	0.8	0.7	1.0	1.9	1.2	0.6	0.7	1.0	1.2	3.8	0.9	0.2	0.5	0.9	1.1	1.0	1.0	1.1
YDR425W	0.31	1.2	1.2	1.1	1.3	1.3	1.4	1.1	0.9	2.2	2.6	1.2	1.8	1.7	1.4	2.2	1.0	1.7	1.3
YDR485C	0.59	1.0	0.8	1.5	1.3	1.1	1.2	0.9	0.9	2.0	2.7	1.1	1.2	1.2	1.6	0.9	0.7	0.9	0.8
YDR504C	0.70	1.2	1.2	1.2	1.2	1.3	2.2	0.7	1.2	1.1	2.3	0.8	1.1	1.2	1.1	0.8	0.9	1.0	1.0
YEL044W	0.93	1.0	1.4	0.7	0.6	0.6	1.3	0.6	1.6	1.2	2.1	0.8	0.8	0.8	1.2	0.9	0.7	1.5	0.8
YER092W	1.13	1.7	1.4	1.9	1.0	1.2	1.2	0.9	0.9	1.6	1.9	1.1	1.3	1.5	1.2	1.1	1.2	1.3	1.3
YER182W	0.87	1.2	0.8	3.6	0.5	1.9	0.9	1.0	1.5	1.2	2.2	1.4	0.8	0.6	1.2	1.9	1.1	0.8	1.2
YFL042C	0.43	1.2	1.1	1.0	1.1	1.2	1.7	0.9	5.4	2.0	2.0	0.8	1.1	1.5	1.4	1.1	0.6	0.9	0.8
YFR056C	0.59	0.8	1.1	0.5	0.9	0.6	0.3	0.5	1.3	2.7	2.4	1.0	0.9	0.3	1.2	0.5	0.7	1.5	0.9
YGL041C	0.51	1.1	1.0	0.8	0.7	1.2	1.0	0.6	0.6	0.4	1.3	0.8	1.0	1.4	0.6	1.0	1.3	0.6	0.9
YGL045W	0.47	1.2	1.3	3.4	1.5	1.1	1.3	1.1	1.2	4.2	2.8	1.2	1.7	0.8	1.0	3.4	1.9	1.1	1.4
YGL057C	0.56	1.1	0.9	1.2	0.7	1.5	1.3	1.1	1.3	1.1	2.1	1.1	1.1	1.3	1.3	1.4	1.4	1.1	1.3
YGL183C	0.18	1.0	1.4	0.6	1.7	1.7	1.5	0.9	0.8	2.5	3.4	0.8	1.2	1.2	1.6	0.5	0.8	1.4	1.1
YGL223C	0.60	1.0	0.8	1.1	0.7	0.9	1.7	0.9	1.3	2.0	2.6	1.0	1.2	1.1	1.4	0.7	1.0	1.7	1.1
YGR156W	0.26	0.8	0.8	0.5	1.3	1.6	1.8	1.2	0.5	2.4	4.0	1.3	1.3	1.2	1.0	1.2	1.7	1.3	0.9
YGR198W	0.87	1.0	1.1	1.2	0.9	0.8	1.3	0.7	1.0	1.8	2.9	1.0	0.8	0.8	0.8	1.0	0.7	0.9	0.7
YGR210C	0.56	0.7	1.1	0.7	1.3	0.8	1.0	0.6	1.0	1.8	3.5	1.0	0.8	0.8	0.8	0.9	1.1	1.4	0.9
YGR211W	1.99	0.5	0.5	0.3	0.5	0.4	0.8	0.6	0.8	2.5	2.9	1.0	0.5	0.6	0.9	1.0	2.0	1.0	0.7
YGR237C	0.50	1.0	0.9	1.2	1.1	0.6	1.6	0.8	1.6	1.4	1.8	1.0	1.4	0.7	1.2	0.8	2.5	1.3	0.8
YGR250C	1.21	2.1	1.3	1.2	1.2	1.3	1.7	0.6	1.6	2.8	2.4	1.1	1.2	1.6	1.4	1.5	1.4	1.4	1.3
YGR266W	0.59	1.0	0.7	1.3	1.1	0.8	1.1	0.6	1.2	1.1	2.0	0.9	0.9	1.2	0.8	0.9	1.0	0.5	0.7
YGR277C	0.81	1.1	1.3	1.0	0.9	1.5	1.6	0.9	1.2	1.5	2.8	1.3	1.9	0.8	0.8	0.8	1.1	1.9	1.0
YHL021C	1.27	3.6	1.3	2.4	1.2	1.1	2.6	1.1	1.4	1.1	2.7	1.0	2.7	1.4	0.9	3.2	5.9	3.9	1.6
YHL037C	0.28	0.9	0.9	0.7	0.8	0.9	1.0	0.6	1.0	1.1	0.4	1.1	1.0	0.7	1.0		0.9	1.4	1.2
YHR083W	0.90	1.0	0.8	2.4	1.3	1.6	1.1	0.9	1.3	2.1	2.0	1.0	1.0	0.9	0.9	1.3	1.4	0.9	1.0
YHR134W	0.81	1.3	1.3	1.2	1.0	1.6	1.2	1.0	0.7	1.5	3.5	1.2	1.3	2.0	1.1	1.1	0.4	0.7	1.1
YHR180W	0.36	1.0	0.8	1.3	0.8	1.5	1.3	0.7	1.4	3.5	4.8	1.2	1.1	1.1	0.9	1.5	1.1	0.7	1.5
YIL108W	0.51	0.7	1.2	0.7	1.8	1.0	1.3	0.7	1.2	2.0	2.4	0.8	0.9	0.6	1.3	0.7	2.2	1.7	1.0
YIL165C	0.74	1.3	1.4	1.9	0.8	1.3	1.5	0.9	1.1	3.4	3.2	1.1	1.5	0.8	1.6	1.6	0.9	2.3	1.2
YJL032W	0.33	1.1	1.1	1.2	1.0	1.6	1.4	0.5	1.8	2.0	3.3	1.3	0.9	0.6	0.9	0.9	0.8	1.0	1.1
YJL049W	0.75	1.1	0.9	1.6	0.8	1.8	0.9	0.8	1.5	1.9	2.0	1.5	1.2	1.5	1.6	1.8	0.5	0.8	1.3

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19
YJR044C	1.1	1.2	5.1	1.0	1.0	1.5	2.0	1.0	2.2	1.6	1.9	0.7	2.0	1.3	1.6	2.7	1.8	1.6	1.18
YKL059C	0.8	1.0	0.9	0.7	1.3	0.9	1.0	1.0	2.6	1.2	0.9	0.9	1.3	1.1	1.1	0.8	1.1	0.9	0.53
YKL090W	1.0	0.9	1.0	1.2	1.1	1.0	1.1	1.2	3.9	1.6	2.3	0.6	0.8	1.4	0.8	1.6	0.7	1.0	0.37
YKL094W	1.2	1.6	1.2	1.9	0.9	1.0	1.1	1.3	3.1	1.8	1.3	0.9	1.7	1.3	1.0	2.0	1.2	1.9	1.60
YLR097C	1.1	1.5	1.0	1.6	1.6	1.7	1.8	1.4	2.2	1.1	1.7	0.8	1.1	1.7	0.9	2.5	1.1	1.7	0.76
YLR226W	1.0	1.8	0.3	1.0	1.7	1.1	1.9	1.3	2.1	1.4	0.8	0.7	0.7	1.1	1.3	0.9	1.1	1.0	0.56
YLR392C	1.1	0.9	0.8	1.9	1.0	1.2	1.0	1.3	2.4	2.1	1.4	0.6	1.4	1.1	0.5	2.1	0.8	1.6	0.46
YLR427W	0.6	1.0	0.2	0.5	1.6	1.0	1.2	1.1	2.1	1.3	0.8	0.9	2.5	0.8	0.8	1.3	1.0	1.0	0.49
YML013W	0.8	1.0	0.4	0.6	1.3	0.6	1.3	0.6	2.1	1.2	1.1	0.9	1.2	1.1	2.2	1.3	1.1	0.8	0.27
YML029W	0.6	1.5	1.3	1.0	1.2	1.6	1.1	0.9	2.3	1.8	1.2	1.1	2.0	1.6	0.8	1.1	1.2	1.0	0.46
YML041C	1.2	1.0	0.6	1.0	1.3	1.9	1.4	1.8	3.0	1.5	0.9	0.8	1.2	2.2	1.0	1.4	1.3	1.3	0.59
YML079W	1.0	1.7	1.1	1.0	0.8	1.4	1.2	1.2	1.9	1.4	1.2	1.1	1.6	1.4	0.3	2.0	1.4	1.4	1.18
YMR068W	0.9	0.7	0.8	1.5	1.6	1.1	1.5	0.8	2.4	1.4	1.1	0.7	1.4	1.1	2.2	0.8	1.3	1.1	0.24
YMR160W	0.8	1.3	1.2	1.5	1.4	2.2	1.0	0.9	2.2	1.8	1.0	1.0	1.6	1.1	1.5	1.4	0.9	1.3	0.37
YNL026W	0.7	1.0	1.3	1.2	1.4	1.1	1.5	1.0	2.7	1.8	1.1	0.9	1.7	0.8	0.8	1.5	1.0	1.4	0.86
YNL063W	0.9	1.9	0.9	0.8	1.1	1.1	1.4	1.5	3.0	1.8	1.1	1.0	1.5	1.1	0.7	1.8	0.9	1.0	0.54
YNL176C	1.1	1.3	2.9	1.4	0.8	0.7	0.7	0.9	2.4	2.1	1.2	0.6	0.6	0.9	0.8	1.3	0.6	0.8	0.66
YNL194C	1.6	0.7	2.0	15.2	0.7	0.7	1.5	0.9	2.2	6.4	17.1	0.5	1.5	3.0	0.5	4.3	0.8	2.4	0.34
YNL253W	1.3	1.3	0.6	1.0	1.5	1.3	1.3	1.1	2.8	2.6	0.8	0.8	1.1	1.4	0.5	1.1	1.1	1.2	0.54
YNL276C	1.3	13.1	1.9	0.3	1.1	1.3	0.9	0.7	3.1	1.3	0.7	0.9	1.5	1.5	0.5	0.8	1.1	0.8	0.22
YNR051C	0.7	0.5	1.1	0.6	1.3	1.8	1.3	0.7	2.4	1.4	1.5	0.9	2.1	1.0	1.2	0.6	0.7	0.8	1.58
YOR022C	1.3	1.1	1.1	1.2	1.4	1.2	1.6	1.2	2.0	1.4	1.7	0.8	1.7	1.0	0.8	1.8	1.1	1.1	0.36
YOR087W	0.7	1.0	1.8	1.3	0.8	0.3	0.9	0.8	2.8	1.3	1.3	0.8	1.2	0.9	0.8	1.2	0.8	1.1	0.61
YOR138C	0.8	1.5	0.7	0.8	0.8	1.0	1.1	0.8	2.1	3.7	0.7	0.9	1.8	0.9	1.0	1.1	1.1	1.1	0.47
YOR267C	0.8	0.7	1.0	0.9	1.2	1.6	0.9	0.7	2.4	2.2	0.4	0.9	1.2	0.9	1.3	0.8	1.3	1.0	0.58
YPL005W	1.0	1.0	1.0	1.0	1.4	0.8	2.0	1.0	2.6	2.8	1.1	0.7	1.2	1.0	1.2	1.6	1.2	1.3	0.32
YPL150W	0.7	0.9	1.6	0.9	1.0	0.6	1.2	1.1	3.1	2.0	1.1	1.0	1.2	1.0	1.1	1.2	1.4	1.2	0.47
YPL152W	1.4	1.1	1.4	1.8	1.4	1.2	1.3	1.1	3.6	2.7	1.4	0.9	1.4	1.2	2.3	1.4	1.2	1.1	0.42
YPL168W	1.1	1.5	0.5	1.4	1.0	0.8	1.2	1.2	2.1	1.6	0.7	0.7	1.0	1.0	0.8	1.3	1.1	1.9	0.41
YPL180W	0.9	2.0	0.7	0.6	1.2	1.5	1.0	1.0	1.9	1.8	1.0	0.8	1.5	1.0	0.7	1.0	1.0	1.2	0.30
YPL188W	1.3	1.2	2.9	1.0	0.9	0.6	1.3	1.6	2.5	2.6	1.0	0.6	0.9	1.4	0.8	1.7	0.7	0.9	0.55

Gene																		
YPR049C	1.0	2.5	1.5	1.0	0.7	1.2	1.1	1.1	2.4	2.1	0.9	0.9	1.6	1.4	1.5	1.7	1.0	1.1	0.34
YPR148C	1.1	1.2	0.8	1.3	0.9	1.0	1.6	1.5	2.7	1.7	0.9	1.2	1.2	1.1	1.7	1.7	0.9	2.0	1.25
YPR172W	1.1	1.6	2.2	1.2	1.0	1.7	1.2	1.0	2.1	1.3	1.9	0.8	1.3	1.6	1.5	1.9	1.1	1.4	0.45
YAL018C	2.0	1.9	1.1	11.3	0.8	0.7	1.0	1.6		0.4	0.1	0.9	1.3	1.0	6.9	1.1	0.9	0.9	0.21
YAR064W	2.1	0.9	0.9	2.8	0.8	0.5	1.1	1.1	0.0	0.7	0.7	0.8	1.1	1.1	1.9	1.0	0.9	0.9	0.30
YBR012C	2.5	1.7	1.3	0.8	0.9	1.8	1.5	1.1	1.4	2.6	0.7	1.0	2.1	0.9	1.1	1.3	1.4	1.2	0.46
YBR287W	1.7	1.9	3.1	2.4	1.3	1.4	1.1	1.0	1.2	1.6	2.0	1.2	3.4	0.8	1.3	1.6	3.2	1.9	2.73
YDR250C	1.9	1.4	0.9	3.0	1.0	0.4	1.0	1.1		0.5	0.6	0.8	1.2	0.9	0.7	1.7	0.9	0.9	0.32
YJL037W	1.8	1.4	1.4	2.4	1.5	1.8	1.2	1.2	1.8	2.4	1.6	1.0	1.1	2.0	1.6	1.0	1.3	0.9	0.26
YNL058C	2.0	1.0	2.1	1.7	1.0	0.4	0.7		0.3	0.7	1.0	0.9	0.6	0.8	2.2	0.9	0.8	1.0	0.60
YJR030C	0.7	4.4	0.9	1.2	0.7	0.6	0.7	0.9	0.4	0.5	0.8	0.8	0.7	1.0	0.8	0.9	0.7	0.9	0.27
YKR040C	1.2	3.7	2.4	2.9	0.9	0.9	0.9	1.0	1.3	1.2	0.8	0.6	0.6	3.8	1.1	1.2	0.7	0.8	0.53
YDR128W	0.6	3.9	1.4	0.9	0.8	0.9	0.8	1.1	0.9	1.5	0.3	0.6	1.1	1.0	1.4	1.3	0.9	0.9	0.40
YGR139W	1.3	3.7	0.8	0.7	1.3	0.6	0.8	0.6		0.6	0.9	0.5	0.4	0.9	2.3	0.8	1.0	0.8	0.22
YOR253W	0.9	2.8	1.0	1.4	0.8	0.5	1.3	1.2	0.4	1.0	0.9	0.7	0.5	1.3	1.1	0.9	0.9	0.9	1.01
YOL026C	1.2	2.7	0.7	1.4	1.9	1.0	1.8	1.1	1.2	1.1	1.2	0.9	1.2	1.3	0.9	2.4	1.0	1.4	0.65
YDR278C	1.0	3.2	0.9	1.0	1.1	1.0	0.7	0.5	0.6	0.7	0.4	0.6	0.7	0.9	0.7	0.5	0.9	0.8	0.78
YHR095W	1.1	2.6	1.5	2.1	1.1	1.0	0.8	1.0	1.5	1.2	1.3	0.6	0.7	0.9	0.8	0.9	0.8	0.7	0.67
YCL042W	1.0	2.5	7.2		1.1	0.6		0.6	0.7	2.2	3.2		7.5				0.8		1.94
YNL200C	1.0	3.0	3.6	2.0	1.0	0.4	1.2	0.7	1.9	1.2	3.1	0.9	1.1	0.6	0.8	0.9	1.2	0.9	1.40
YPL221W	0.9	3.0	1.0	1.8	1.4	1.1	1.3	0.9	0.3	1.3	1.0	0.8	1.0	0.8	1.0	1.2	1.5	1.2	1.51
YLR415C	1.1	2.4	6.7		0.9	0.3	1.2	0.9		1.8	0.8	0.8	1.0	0.8	1.0	1.9	0.8	1.0	0.19
YOR325W	1.0	2.6	1.5	0.3	0.9	0.3	1.2	0.9	0.5	1.1	0.6	0.9	0.6	1.3	0.7	1.4	0.8	1.0	0.19
YGL088W	0.9	2.1	0.9	1.1	0.6	0.8	1.0	0.5	1.0	1.4	0.8	0.6	0.7	1.4	0.4	0.3	0.5	0.7	1.80
YDR090C	0.9	3.0	0.8	1.2	1.8	1.4	1.5	0.8	1.6	0.9	0.6	0.7	0.8	0.9	1.1	0.9	1.1	1.1	0.79
YMR071C	1.0	2.0	1.1	1.9	1.4	1.2	1.8	1.1		1.5	0.8	1.0	1.3	1.2	0.8	1.4	1.2	1.9	2.39
YGR293C	0.5	1.9	1.6	0.0	1.1	0.7	1.3	1.3	0.8	1.1	0.6	1.3	0.7	1.0	0.7	0.9	0.8	0.9	0.23
YJL017W	1.1	1.7	3.5	1.1	1.3	1.2	1.0	1.0	0.3	1.4	1.4	0.7	1.5	1.0	1.1	0.6	1.0	1.0	0.85
YIL127C	1.1	4.8	0.2	1.2	1.0	0.4	1.2	1.2	0.2	0.5	0.9	1.0	0.4	1.3	0.7	0.2	0.7	0.6	1.57
YDR281C	2.1	2.6	0.4	2.1	1.3	1.5	1.2	1.2	1.0	0.5	0.8	1.3	0.7	1.2	0.3	0.6	1.5	1.2	1.56
YDR366C	0.9	2.0	0.8	0.9	1.0	1.5	1.1	1.1		1.5	1.7	0.6	0.8	1.4	1.4	1.0	1.2	0.9	1.14

Gene																			
YFR026C	0.9	2.0	1.0	0.8	1.0	1.2	1.3	1.3	1.8	0.6	0.8	0.6	1.1	1.0	2.3	2.2	1.1	1.1	0.39
YAR047C	1.1	1.7	1.5	0.7	1.1	1.3	1.2	0.8	0.5	2.3	1.1	0.9	1.4	1.3	0.5	1.0	1.7	1.0	0.35
YHL006C	0.7	1.4	0.9	0.6	1.1	1.1	1.2	1.1	0.9	0.9	0.7	1.0	1.1	1.1	0.6	0.9	1.1	1.0	0.37
YPL225W	1.3	1.7	1.0	1.6	1.1	1.8	1.7	1.7	1.0	1.6	0.9	0.7	0.8	1.4	0.9	1.8	1.0	1.7	2.87
YBR124W	0.9	1.4	1.5	0.4	1.0	0.6	1.1	1.2	1.1	0.7	0.4	0.9	0.9	1.0	1.0	0.8	0.9	0.9	0.29
YBL044W	0.9	2.7	2.1	0.8	1.2	0.7	1.1	0.7	0.2	0.5	0.6	0.9	0.7	0.9	0.7	0.6	0.8	0.8	0.39
YCL056C	1.3	1.4	0.7	1.0	1.5	1.4	1.6	1.0	1.5	1.6	1.5	1.0	1.3	2.2	1.7	2.3	1.2	1.5	0.82
YCR007C	2.2	1.6	0.9	2.9	1.5	1.4	2.0	1.0	1.4	2.6	1.1	0.8	1.5	1.7	0.8	1.7	2.6	2.1	0.39
YPR146C	0.8	1.6	1.3	0.9	1.2	1.1	1.0	0.8	0.9	1.2	1.4	0.8	1.3	0.9	0.9	1.3	1.0	1.1	0.80
YKL097C	0.9	1.6	0.6	1.4	1.8	0.7	0.8	0.4	0.1		0.6	0.6	0.9	1.0	0.8	0.5	1.1	0.5	0.21
YBR066C	1.9	1.3	1.6	1.6	1.3	1.3	1.3	1.2	0.3	0.9	1.2	0.7	0.6	1.1	0.4	3.2	1.2	1.2	0.83
YLR338W	1.1	1.6	1.4	1.1	0.9	1.1	0.9	0.8	7.9	0.5	0.9	0.6	1.2	0.8	1.5	0.9	0.8	0.6	0.33
YBR162C	0.6	0.5	3.1	0.8	1.3	0.6	0.3	0.8	0.1	0.4	0.8	0.7	0.7	0.5	1.9	0.4	1.2	1.3	3.96
YDL046W	1.2	1.4	5.1	1.3	0.9	1.8	1.2	0.7	1.6	2.3	2.6	1.0	1.5	1.2	2.3	2.6	1.2	1.6	1.94
YDR133C	0.9	1.1	2.9	2.0	1.2	0.7	0.2	0.5	0.1	0.4	1.3	0.3	0.1	0.6	0.6	1.1	0.6	0.9	4.02
YGR038W	0.9	1.2	3.5	0.8	1.3	1.3	1.1	0.7	1.4	1.0	1.4	1.0	1.2	1.4	1.1	1.3	1.1	1.1	1.27
YGR243W	1.4	2.2	9.4	5.0	1.0	1.5	1.9	1.3	0.7	3.0	1.7	1.2	1.1	1.9	0.8	2.8	2.1	4.4	1.11
YHR105W	0.9	0.8	2.4	6.3	1.5	0.2	0.9	1.0	1.1	3.4	0.7	0.7	1.4	1.2	0.9	1.8	1.0	0.9	0.32
YHR181W	0.9	0.7	2.4	1.4	1.0	0.9	0.8	0.9	0.5	1.3	1.3	0.8	0.7	1.6	1.4	1.5	0.9	0.9	1.40
YJL097W	1.0	1.1	3.7	1.6	0.9	1.6	1.0	0.8	0.3	0.7	1.5	1.0	0.7	1.0	1.1	1.2	1.2	1.1	1.69
YKL051W	1.0	1.1	4.7	0.8	0.8	1.0	0.6	0.8	1.3	1.1	1.8	0.8	1.2	0.7	1.5	0.9	1.5	1.4	1.07
YKL100C	0.7	1.1	5.0	1.6	0.6	1.8	1.2	0.7	1.3	1.3	1.6	0.9	1.3	1.0	1.7	2.0	0.7	1.5	1.14
YLR339C	0.7	0.8	3.1	0.8	1.3	0.4	0.4	0.5		0.4	0.8	0.6	0.1	0.5	1.0	0.5	0.7	0.6	1.37
YOL030W	1.0	0.8	4.4	1.0	0.9	0.9	1.3	0.6	1.2	0.6	1.0	0.9	1.7	0.6	0.9	0.7	0.9	1.0	1.93
YPR150W	1.3	1.1	4.3	3.0	1.3	0.9	0.9	0.8	1.2	3.3	1.2	0.6	1.4	1.4	1.0	1.8	0.9	1.0	0.31
YBL100C	0.8	1.8	1.6	0.5	0.6	0.4	1.1	0.6	8.5	0.8	0.2	0.7	0.9	0.9	1.1	0.5	0.8	0.8	0.58
YBR096W	1.1	1.5	2.8	1.6	0.9	1.7	1.9	1.0	0.6	1.6	1.0	0.9	1.9	1.7	1.3	1.1	1.1	1.5	1.43
YBR100W	1.0	1.5	4.8	1.1	0.9	0.5	1.0	0.9	1.2	3.0	1.1	0.7	1.2	1.2	1.2	1.2	0.8	0.9	0.35
YCL058C	1.1	1.6	2.2	1.2	1.7	1.1	0.8	0.9	0.6	1.0	1.2	1.0	0.9	1.9	1.3	0.8	1.4	0.9	0.72
YCR030C	1.1	0.9	3.3	1.0	1.0	1.2	1.0	0.7	0.9	2.0	1.0	0.9	1.7	0.8	1.2	1.0	1.2	1.0	0.63
YDL015C	0.9	0.7	3.6	1.1	1.2	2.5	1.1	0.9	0.7	1.1	0.8	1.0	0.9	1.1	1.3	2.1	1.0	1.5	2.99

ORF																			
YDL023C	0.8	1.6	2.4	1.1	0.6	0.3	1.5	0.7	0.7	1.5	3.5	0.9	1.4	0.7	0.6	0.9	0.8	1.1	0.78
YDL086W	0.9	1.2	1.9	0.9	1.3	0.9	0.8	0.8	1.3	1.1	1.4	0.8	1.7	0.9	0.9	1.1	0.8	0.8	0.80
YDR233C	1.1	1.1	3.2	1.9	0.7	0.8	1.2	1.1	0.2	0.7	3.7	1.3	0.5	0.9	1.5	2.8	0.9	0.9	3.47
YDR359C	0.8	0.7	1.7	1.9	1.3	0.8	1.0	0.8	0.7	1.0	0.5	1.0	1.1	1.3	1.4	0.9	0.8	0.9	0.34
YEL033W	0.9	1.2	2.7	1.1	1.0	0.7	0.3	0.7	0.6	0.4	1.2	0.6	0.4	1.0	0.6	0.9	0.9	0.9	2.96
YGR022C	1.3	1.1	1.7	2.2	1.1	1.3	0.9	0.9	0.2		0.4	0.7	1.2	1.1	0.7	0.6	0.9	0.8	0.50
YGR026W	0.8	1.1	2.9	0.9	0.9	1.5	0.9	0.9	0.8	0.7	1.3	0.5	0.6	1.0	1.2	1.4	1.0	1.2	2.19
YGR107W	1.0	0.8	1.7	0.2	1.1	0.8	1.0	0.9	0.1	0.0	0.6	0.6	0.9	1.0	1.1	0.8	1.2	0.8	0.43
YHL005C	0.9	2.7	2.7	0.6	1.2	1.1	0.8	0.9		0.9		0.7	0.7	1.0	0.7	0.7	1.0	0.8	0.33
YHR126C	1.1	0.9	2.8	1.0	1.0	1.2	1.1	0.6	0.4	0.7	1.9	1.0	0.8	0.8	1.4	1.7	1.1	1.3	1.31
YHR143W	0.5	0.9	4.9	1.7	1.2	2.1	0.5	1.5	0.2	0.7	1.2	0.5	0.5	0.8	0.3	0.9	0.9	0.7	3.58
YIL157C	1.1	1.3	2.1	1.4	0.8	1.3	1.2	1.0	0.9	0.9	1.3	0.8	1.0	1.0	0.5	1.8	1.1	1.5	1.46
YIR041W	1.6	1.0	2.4	1.3	1.3	1.0	1.6	0.9	1.5	2.5	1.2	1.3	1.1	1.1	1.3	1.3	1.1	0.9	0.66
YJL016W	1.3	1.6	2.7	0.7	1.4	1.5	1.4	0.9	0.6	0.9	1.3	0.9	1.3	1.6	1.1	2.5	1.2	1.5	0.88
YJR018W	0.8	1.2	1.8	0.9	1.1	1.0	0.9	0.7	0.4	0.7	0.9	0.8	1.5	0.9	1.4	0.8	1.0	0.7	0.35
YKL147C	1.0	1.3	1.9	1.8	0.8	0.7	0.8	0.7	1.0	0.5	0.3	0.9	1.0	1.0	0.7	1.1	0.9	0.9	0.28
YKL169C	1.0	1.0	1.6	1.0	0.8	1.2	1.5	1.2	0.3	0.5		0.7	1.0	1.3	0.8	2.6	0.9	1.1	0.45
YKR033C	0.9	1.2	2.1	1.9	1.0	0.6	1.0	1.0	0.1	1.4	0.3	0.4	0.9	0.9	1.1	0.6	1.0	0.9	0.28
YLL064C	0.8	1.7	1.7	1.5	0.9	1.7	1.1	0.9	1.1	2.5	1.0	1.1	1.3	1.1	1.2	1.6	1.2	1.0	0.68
YLR041W	0.8	1.2	2.2	2.2	1.6	0.5	1.2	0.6		0.4	1.1	0.4	0.3	0.5	1.3	0.5	0.7	0.9	0.69
YLR177W	0.8	1.2	1.8	0.7	0.8	1.1	1.3	0.9	1.0	2.3	0.9	1.1	1.5	1.0	0.5	1.3	1.1	1.5	1.25
YMR007W	1.1	0.9	2.0	1.7	1.3	1.7	3.1	0.7	0.6	0.1	0.9	0.8	1.3	1.2	1.8	1.1	2.5	1.0	0.30
YMR156C	1.0	0.9	2.7	1.2	1.2	1.4	1.4	0.9	0.1	1.3	1.1	0.7	1.0	1.2	0.7	1.3	1.2	1.1	0.40
YMR215W	0.8	0.5	2.1	4.7	1.1	0.3	0.3	0.5	2.6	0.2	1.1	0.4	0.2	0.5	0.7	0.2	0.5	0.7	1.59
YNL195C	0.9	1.1	3.5	0.6	0.9	0.8	1.1	0.9	1.9	11.7	2.9	0.6	1.6	1.5	1.4	6.4	0.8	0.9	0.32
YOL073C	0.7	0.9	2.5	0.8	1.1	1.2	1.3	0.7	0.2	1.1	1.7	0.8	1.6	0.8	1.6	1.7	1.2	1.2	0.54
YOR129C	0.6	0.8	3.3	2.2	1.3	0.4	0.4	0.6	1.0	0.4	1.1	0.6	0.2	0.5	0.6	0.3	0.6	0.4	5.22
YOR161C	0.6	1.0	6.0	1.9	1.1	0.9	1.2	0.8	1.1	1.7	4.6	0.5	0.7	0.9	1.4	2.0	0.7	1.2	0.82
YPL004C	0.7	1.2	3.7	0.9	1.4	1.3	2.3	0.9	0.4	1.6	1.7	0.9	1.3	1.0	1.1	2.0	1.2	2.2	4.52
YPL246C	0.7	0.8	2.6	0.6	1.4	1.3	0.8	0.6	1.2	0.5	1.1	0.8	0.9	0.7	1.2	1.1	1.2	0.9	0.98
YPL272C	1.1	0.9	2.2		1.3	1.1	0.7	0.8		2.5	1.1	0.7	1.1	1.1	0.6	2.5	0.9	1.2	0.25

Gene																			
YPR063C	1.0	0.8	2.6	0.8	1.2	1.0	0.6	0.7	0.5	0.6	1.0	0.7	0.8	1.0	1.0	1.2	1.0	0.9	1.41
YDL129W	1.0	0.7	1.0	2.3	1.3	0.9	0.9	1.0	0.5	0.9	0.6	0.9	0.5	0.8	0.5	1.4	0.6	0.8	0.69
YDR066C	1.3	1.5	0.9	2.2	1.0	1.4	1.1	1.3	1.5	1.1	0.6	0.8	1.4	1.3	0.9	1.4	1.1	1.1	0.57
YGL059W	1.3	1.5	0.9	3.1	0.7	0.7	1.0	1.4	1.6	1.7	1.4	1.0	2.0	1.2	1.6	1.7	1.4	1.4	0.49
YNL144C	1.8	0.8	1.2	4.5	0.9	1.1	1.1	1.1	0.7	1.9	1.7	1.4	1.0	1.1	0.1	1.7	2.4	2.8	0.51
YAL037W	1.6	0.9	1.1	3.5	1.2	1.1	1.0	1.3	0.6	1.9	0.5	0.8	1.1	1.2	0.8	0.6	0.9	0.9	0.55
YAR023C	1.1	1.0	1.7	2.1	1.3	1.0	1.1	0.8	0.9	1.4	1.0	1.2	1.1	1.0	3.1	1.6	0.9	1.1	0.62
YCR015C	1.1	0.9	0.5	2.1	1.7	1.0	1.5	1.2	0.5	1.0	1.1	0.9	0.6	1.2	0.9	1.1	1.1	1.2	0.58
YCR043C	1.4	0.5	0.8	2.3	0.9	0.8	0.7	1.2	0.3	0.7	1.0	0.6	0.8	1.6	1.2	0.8	1.0	1.1	1.25
YDL146W	1.0	1.2	1.2	2.0	0.7	0.7	1.4	0.9	0.8	2.3	1.4	1.0	1.4	1.0	1.7	1.8	1.0	1.2	0.62
YDR057W	0.9	1.4	1.6	2.6	0.8	0.7	1.4	1.2	1.5	1.1	1.0	0.7	0.9	1.2	1.1	1.7	0.7	1.1	0.70
YDR222W	1.0	1.1	1.7	1.7	1.4	1.3	0.5	1.0	0.6	1.0	1.0	0.5	0.8	1.3	0.5	0.6	0.7	0.8	0.52
YDR286C	1.6	0.9	1.1	2.1	1.0	1.7	1.3	1.9	0.8	1.2	1.1	0.9	1.4	1.3	0.8	2.1	1.1	1.4	0.90
YDR438W	1.2	1.8	0.8	2.1	1.6	1.3	1.4	1.0	1.1	0.8	1.1	0.8	1.2	1.3	1.0	1.2	1.6	1.2	0.48
YDR479C	1.1	1.8	1.0	2.3	0.9	1.6	1.2	0.9	1.2	1.6	1.0	1.0	1.2	1.4	1.6	2.1	1.1	1.5	0.51
YEL057C	1.1	0.6	1.3	2.4	1.0	0.9	1.1	0.8	1.2	1.9	0.7	0.8	1.5	1.5	1.0	1.8	0.9	1.0	0.44
YEL073C	1.6	0.8	1.0	2.8	1.2	1.5	0.8	0.5	0.7	1.2	1.1	0.5	1.0	1.1	2.8	1.0	1.3	0.8	0.38
YER084W	0.8	1.1	1.0	3.9	0.9	0.6	0.8	0.8		0.8		0.8	0.7	0.9	2.6	1.5	0.8	0.9	0.30
YER121W	1.1	1.2	0.7	7.7	1.3	2.5	1.3	1.3	0.6	0.5	1.2	0.7	0.6	1.3	0.9	4.6	1.2	1.8	0.73
YER189W	0.9	0.8	0.9	1.9	1.3	0.5	0.9	0.7	0.4	0.5	0.7	0.8	0.7	0.9	0.9	0.8	0.8	0.8	0.43
YFL017C	1.3	1.2	0.9	2.3	1.5	1.3	1.5	0.8	0.8	0.6	1.1	1.0	0.7	1.1	0.6	1.8	1.5	1.8	1.21
YFL046W	1.3	0.9	0.7	2.1	1.7	0.7	1.3	1.0	0.7	0.7	1.3	0.8	0.7	1.3	1.0	1.1	1.4	1.6	0.68
YFR008W	1.1	1.0	0.8	2.2	1.1	1.0	1.1	0.9	1.5	1.4	0.7	0.9	0.8	1.1	0.8	1.5	1.0	1.0	1.26
YGL214W	0.9	1.0	1.2	2.6	1.2	0.9	0.8	0.8	0.4	0.7	0.4	0.8	0.6	1.1	0.9	0.8	1.0	0.8	0.61
YGL218W	1.4	0.9	1.4	3.4	1.2	1.1	0.8	0.8	1.3	1.4	0.1	0.8	1.3	0.9	1.1	0.7	1.0	1.0	0.53
YGR021W	0.9	1.5	1.0	8.6	1.0	0.9	1.3	0.9	0.7	0.7	0.6	0.9	0.9	1.2	0.8	2.1	1.0	1.0	0.58
YGR024C	1.2	0.9	0.7	2.6	1.0	0.7	1.3	0.7	0.4	1.2	1.0	0.7	0.5	1.4	1.0	1.2	0.8	1.3	1.61
YGR064W	1.1	1.2	1.6	2.3	0.7	0.6	1.1	0.8	0.1	0.8	1.7	0.8	0.9	2.1	1.0	1.3	0.8	0.9	0.50
YGR182C	1.6	1.2	1.2	2.3	1.1	0.9	0.7	0.7	0.5	0.7	0.9	0.7	0.7	2.2	0.4	2.0	1.0	1.7	1.95
YGR236C	1.6	1.6	0.4	4.1	1.2	1.2	1.0	0.9	1.5	0.7	1.0	0.9	1.2	1.2	0.7	7.9	1.5	1.9	0.30
YHL042W	1.2	0.8	1.3	51.1	1.0	0.7	1.2	0.6	0.8	1.8	0.7	0.6	1.3	1.2	1.1	1.9	1.1	0.9	0.37

Gene																			
YIL012W	1.2	5.8	1.5	2.8	1.5	1.5	0.9	0.9	1.7	2.8	0.9	0.6	0.4	1.1	1.1	0.9	1.0	0.9	0.28
YIL028W	1.0	1.1	0.8	5.4	1.4	0.7	1.1	0.8	0.8	1.7	1.1	0.5	1.0	1.1	0.9	1.1	1.3	1.0	0.27
YIL057C	1.3	1.8	1.1	4.6	1.3	1.2	1.2	1.4	0.1	5.0	0.8	0.6	0.9	1.5	0.8	11.1	1.1	3.6	0.26
YIL089W	1.3	1.3	0.7	3.9	1.6	1.6	1.6	1.1		0.6	0.7	0.6	0.7	1.4	0.6	1.3	1.4	1.3	0.31
YIL102C	1.4	1.6	1.0	6.1	1.5	0.8	1.1	0.7	1.9	0.3		0.6	0.7	1.0	0.8	0.6	1.2	1.0	0.18
YIL113W	0.9	1.0	0.9	2.6	0.6	1.0	1.9	0.7	0.4	2.2	2.5	0.8	1.3	1.2	0.9	1.6	1.4	1.3	0.48
YIL122W	1.2	1.1	1.1	2.1	0.9	0.2	0.8	0.7	1.8	0.8	2.1	1.0	0.7	1.0	1.6	1.4	0.9	0.9	0.35
YJL100W	1.4	2.0	0.9	2.3	1.3	1.1	1.2	1.2	0.3	2.7	1.5	0.9	1.4	1.2	1.2	1.4	1.5	1.1	0.38
YJL169W	0.8	1.1	1.5	2.8	1.4	0.8	0.9	0.7	1.0	0.5	0.4	0.5	0.7	1.0	0.9	0.6	1.1	0.9	0.35
YJL199C	1.1	0.7	0.9	4.5	1.0	1.7	1.0	1.0	1.8	1.6	1.0	0.8	0.9	1.9	0.9	3.7	1.0	1.0	0.59
YJR039W	0.9	0.6	0.8	3.0	1.8	1.0	1.6	1.2	0.4	1.6	1.8	0.7	1.5	0.6	1.2	1.5	1.3	1.3	0.24
YJR101W	0.8	0.6	0.7	2.9	1.8	0.9	1.5	1.1	0.8	0.8	1.2	0.5	0.5	0.9	0.5	1.2	1.0	1.1	2.04
YKL061W	1.3	0.7	0.7	1.8	0.8	1.0	0.9	1.2	0.8	1.0	1.1	0.7	0.8	1.2	0.6	1.5	1.3	1.6	0.92
YKL121W	0.9	7.8	0.8	11.8	1.6	1.2	1.7	1.0	1.3	0.9	1.6	0.8	1.0	1.2	0.8	1.6	1.6	1.1	0.31
YKL160W	1.5	1.0	0.4	1.8	1.1	1.5	1.5	2.1	0.8	1.9	1.4	0.9	1.6	1.5	0.8	1.6	1.5	2.2	2.19
YLR016C	0.7	1.3	0.5	2.0	1.5	0.8	1.1	1.2	0.3	1.1	1.0	0.7	0.8	0.9	0.7	1.3	1.0	1.3	1.15
YLR030W	1.4	1.5	0.8	2.5	1.2	1.5	1.5	0.9	0.4	2.7	0.2	0.8	1.5	1.2	0.6	2.1	1.0	1.0	0.29
YLR036C	1.3	0.8	0.7	2.0	1.5	1.3	1.7	1.2		1.6	0.8	0.7	0.7	1.3	0.6	1.4	1.0	1.4	1.07
YLR112W	1.1	0.9	1.1	1.7	1.3	1.3	1.0	0.7	0.5	0.7	0.5	0.5	0.7	0.8	0.4	0.4	1.0	0.8	0.39
YLR125W	1.4	2.0	0.5	3.1	1.8	0.7	1.3	1.2	0.8	1.7	1.1	0.5	0.8	1.3	0.7	1.6	1.2	1.2	0.29
YLR128W	1.3	1.4	0.8	1.8		1.3	1.3	1.1	1.4	1.7	1.4	0.7	1.2	1.4	0.9	1.5	1.2	1.2	0.25
YLR204W	1.1	0.9	0.5	2.1	2.0	1.5	2.0	1.3	0.9	1.6	1.6	0.8	1.1	1.8	1.0	2.5	1.3	1.3	1.26
YLR211C	1.3	1.0	0.8	7.7	1.7	1.2	1.8	1.1	1.0	1.2	0.8	0.7	1.1	1.2	3.6	1.9	1.3	1.3	0.35
YLR257W	1.5	1.0	0.7	2.4	1.4	1.2	0.8	1.3	0.7	1.1	1.2	1.0	1.0	0.9	1.0	1.7	1.8	2.6	5.20
YLR326W	1.2	1.0	1.5	2.2	1.3	0.4	1.2	0.9	1.0	1.5	6.6	0.5	0.4	1.1	0.7	0.9	0.8	1.0	0.33
YLR334C	1.2	1.1	1.1	2.3	1.8	1.0	1.4	0.9	0.9	0.8	0.8	0.8	0.9	2.2	2.5	0.7	0.8	1.0	0.30
YLR408C	1.3	2.3	0.6	2.3	1.4	1.0	1.0	1.4	0.2	1.1	0.7	0.8	1.1	2.1	0.9	1.1	1.2	1.2	0.79
YLR414C	1.5	1.6	1.4	4.8	1.3	0.6	0.7	0.9	0.2	1.2	1.2	0.6	1.0	1.0	2.1	0.9	3.9	3.6	2.21
YLR444C	0.9	0.8	1.7	5.9	0.7	0.7	0.9	0.9	1.3	0.2	1.1	0.6	0.5	1.1	1.3	0.7	0.9	0.9	0.50
YML050W	1.5	1.2	1.3	2.1	0.8	0.5	0.9	1.1	0.6	1.6	1.2	0.8	0.9	1.9	1.0	1.5	0.8	1.1	0.42
YML107C	1.1	0.7	0.4	1.8	2.2	1.1	1.5	1.3	0.6	0.9	0.9	0.7	0.6	1.3	1.0	1.3	1.2	1.5	0.67

Gene																			
YMR031C	0.7	0.8	1.2	2.1	0.6	0.7	0.8	0.9	1.5	1.1	0.8	0.7	1.0	1.0	0.7	1.6	0.9	1.3	1.26
YMR204C	1.1	1.9	1.3	2.3	1.0	0.6	0.7	1.0	1.0	2.2	0.7	0.7	1.1	1.2	1.5	1.1	0.9	1.1	0.31
YMR206W	1.4	1.4	2.3	3.9	1.1	1.0	1.3	0.9	1.0	9.0	1.8	1.0	1.2	1.4	0.3	2.2	1.0	1.2	0.17
YNL010W	1.5	1.0	0.7	1.9	1.0	1.2	1.1	1.8	0.5	0.6	1.1	0.9	0.7	1.2	0.9	1.2	1.0	1.7	4.53
YNL127W	1.1	1.2	0.7	3.6	0.7	1.2	0.8	1.0	2.7	2.2	1.0	1.0	1.7	1.0	1.5	1.4	0.9	1.4	0.36
YNL217W	1.1	1.2	0.5	1.7	2.1	1.5	1.3	1.4	0.3	0.9	0.7	1.0	1.0	0.9	0.5	1.0	1.3	2.1	2.35
YOL118C	2.6	2.2	1.3	2.2		1.5	3.2	1.1		3.2	1.4	0.6	1.7	3.0	1.0	0.5	0.9	1.0	0.24
YOR053W	1.0	1.1	0.5	1.7	1.7	0.9	1.6	0.9	1.3	0.8	1.3	0.6	0.9	1.2	1.0	1.3	1.2	1.2	0.77
YOR352W	1.3	0.9	1.0	2.2	1.6	0.9	1.8	1.1	1.7	2.0	1.1	1.0	1.2	1.3	0.7	2.5	1.3	1.7	0.59
YOR394W	1.2	0.8	2.2	1.6	1.6	1.7	1.8	1.0	1.1	2.3	1.9	0.9	1.3	0.9	0.9	1.7	1.6	1.1	0.51
YPL033C	0.8	1.0	0.9	5.1	1.3	0.7	1.0	0.7	0.4	1.6	0.7	0.6	0.7	1.1	0.8	0.4	0.9	0.8	0.23
YPL066W	0.9	1.0	1.1	2.0	1.3	1.3	1.3	0.9	0.5	0.8	1.0	1.1	0.9	0.7	0.7	1.2	1.3	1.3	0.77
YPR014C	1.0	0.7	1.1	7.9	0.8	0.9	0.8	0.9		0.9	0.5	0.7	0.7	1.0	0.9	0.8	0.9	1.1	0.29
YBR005W	1.9	2.6	1.1	2.9	0.8	0.7	1.2	0.9	0.4	1.3	0.8	1.7	1.9	0.9	1.1	1.7	2.9	4.6	1.00
YFL027C	0.8	0.8	1.1	1.3	1.1	0.3	0.4	1.1	1.8	1.3	1.3	0.6	1.1	0.3	1.4	1.2	5.1	5.2	1.74
YGL080W	1.3	1.5	1.1	1.3	1.5	1.4	1.5	1.2	1.1	1.2	0.8	1.0	0.7	1.6	0.9	1.7	1.3	2.9	1.70
YMR252C	1.1	1.0	1.5	1.3	1.3	1.0	1.3	1.1	0.9	1.0	1.4	0.8	1.1	1.1	1.1	2.1	1.5	2.2	0.86
YOR385W	2.8	1.2	0.2	2.5	1.5	1.0	1.2	1.0	1.5	2.2	1.2	0.6	2.8	0.8	0.8	1.2	4.6	5.9	1.17
YAR033W	1.0	0.8	1.5	1.1	1.1	1.4	2.1	1.2	1.3	1.6	1.5	0.9	1.5	1.3	0.9	2.0	1.1	3.0	1.15
YBR151W	0.8	0.8	1.3	1.2	1.2	1.7	1.3	0.8	0.8	0.9	0.9	0.9	1.1	0.8	1.0	3.0	1.4	2.4	1.83
YHR162W	1.2	1.2	0.9	1.8	1.2	1.3	1.7	1.4	1.0	1.7	1.3	1.2	1.5	2.0	1.1	1.4	1.3	2.7	3.64
YLR165C	1.4	0.8	1.3	1.1	1.1	1.5	1.4	1.1	1.7	1.0	1.0	0.9	1.2	1.4	0.5	1.6	1.1	2.1	0.78
YNL157W	1.4	1.1	0.7	1.5	1.9	0.9	1.3	1.1	1.7	1.4	1.2	0.9	1.6	1.5	1.0	1.0	1.9	2.3	1.41
YOL002C	0.9	0.7	0.5	1.0	2.0	0.9	0.4	1.0	0.1	0.3	0.8	1.1	0.2	0.5	0.6	1.7	1.5	2.1	5.33
YPL233W	1.2	0.9	0.5	1.1	1.4	0.6	1.0	0.8	0.3	0.6	0.9	0.6	1.0	1.0	0.4	1.0	1.9	1.9	0.48
YGR149W	1.4	1.3	1.8	1.9	1.0	1.7	1.8	1.0	0.6	0.6	1.8	1.2	2.6	1.0	2.4	1.3	2.0	1.7	0.71
YNL043C	1.0	4.4	1.6	1.3	0.8	0.6	0.9	0.9	0.4	0.4	0.7	0.9	2.1	1.2	1.6	0.8	2.7	1.6	0.68
YPL067C	1.2	1.6	2.8	1.4	1.0	0.8	1.2	1.2		0.8	0.9	1.4	0.9	0.7	1.5	1.1	2.9	1.7	0.40
YPL170W	1.2	1.3	0.9	1.1	1.9	1.1	0.6	1.1	1.4	1.0	1.1	0.9	1.1	1.4	1.2	1.6	2.2	1.4	1.05
YGL051W	1.1	1.0	1.6	1.7	1.3	1.0	1.3	0.8	1.1	1.8	1.4	1.0	1.5	1.2	0.8	2.6	1.4	1.9	1.06
YIL112W	1.1	1.4	2.8	1.9	0.6	1.3	1.1	0.9	1.3	2.0	1.4	1.2	1.1	1.3	1.8	2.4	1.2	1.3	0.45

Gene	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19
YLR052W	0.77	0.9	0.7	2.4	1.0	1.2	0.8	1.0	1.1	1.1	0.4	1.2	1.0	0.8	1.0	1.3	0.8	1.5	1.0
YNL203C	0.21	1.7	1.3	5.6	1.2	2.7	1.2	0.9	1.1	0.3		0.8	1.6	1.7	1.0	3.2	0.3	1.3	0.9
YNR014W	0.31	1.0	1.1	2.4	1.0	4.9	1.5	0.9	4.4	2.3	0.3	0.9	1.7	0.7	1.2	1.2	1.7	0.8	1.0
YAL028W	0.30	1.0	1.0	1.7	2.2	1.6	1.5	1.0	1.0	1.3	1.6	0.8	1.2	0.6	1.0	2.0	1.1	0.7	0.9
YBL095W	0.72	1.9	1.3	2.2	0.4	1.0	1.0	0.8	1.2	0.6	1.0	0.9	1.1	0.9	1.1	1.4	1.2	1.4	0.8
YBR157C	0.69	0.8	1.3	1.9	0.2	0.9	0.5	0.6	0.6	0.3	0.6	0.7	1.6	1.2	1.3	1.4	0.4	1.0	0.7
YDL091C	0.47	1.6	1.1	2.4	1.9	1.5	1.3	1.0	1.5	1.5	1.6	1.3	1.3	0.8	0.7	1.4	1.8	1.3	1.1
YDL216C	0.42	1.6	1.0	1.8	1.0	1.1	1.2	0.9	0.7	1.3	1.3	1.6	1.2	1.6	1.6	2.0	0.7	1.1	1.1
YDR067C	0.76	1.4	1.3	2.4	1.5	1.5	1.2	0.9	0.9	1.3	1.0	1.8	1.3	1.1	0.9	2.7	0.7	1.2	1.3
YDR186C	0.50	0.9	1.1	2.3	0.8	0.8	1.1	1.1	0.7	1.6	1.2	1.2	1.4	0.7	1.3	0.7	0.7	0.9	0.7
YDR196C	1.54	1.9	1.2	2.7	0.7	1.0	1.2	0.7	1.3	1.1	1.6	1.5	1.7	1.7	1.0	1.1	0.7	0.9	0.9
YDR262W	1.11	1.4	1.0	3.8	1.5	1.7	0.9	0.8	1.6	1.7	0.9	1.2	1.7	1.3	1.7	1.2	0.8	1.8	1.3
YDR306C	0.77	1.5	1.0	2.4	1.2	1.1	1.2	0.9	2.1	1.4	2.0	1.3	1.6	1.2	1.7	1.8	0.7	1.2	0.9
YDR319C	1.23	2.2	2.1	2.0	0.8	1.3		1.0	1.3	1.1	1.1	1.3	1.7	1.2	1.2	1.1	0.8	0.9	1.3
YER188W	0.61	1.1	1.0	2.5	0.3	1.1	1.1	0.9	1.2	0.9	0.4	0.7	1.2	1.5	0.9	1.9	1.2	0.9	1.3
YGL004C	0.48	1.4	1.1	2.2	0.6	0.9	1.3	0.8	1.0	2.2	1.8	1.4	2.9	1.4	1.0	1.0	1.3	1.4	0.8
YGR141W	0.65	1.3	1.1	2.1	2.6	0.7	1.0	0.6	0.6	1.0	0.3	0.9	1.5	1.5	1.1	1.7	1.6	1.6	0.8
YHR080C	0.49	1.3	1.1	2.3	0.9	0.9	2.0	1.2	0.7	1.2	1.9	1.1	1.1	1.8	0.8	0.7	1.9	1.8	0.6
YHR097C	0.24	1.4	1.7	2.0	2.7	0.9	1.3	0.8	0.7	0.6	0.4	0.7	0.8	0.8		0.9	0.7	0.7	1.6
YIL077C	0.75	1.1	1.3	2.4	0.9	1.3	1.3	1.6	1.3	1.4	1.5	0.9	1.2	1.8	1.3	1.2	1.2	0.8	0.9
YJL046W	0.68	1.3	1.0	2.5	1.0	1.3	1.3	0.9	4.2	2.7	1.8	1.1	1.5	0.7	1.0	1.8	0.6	0.9	0.9
YLL005C	0.44	1.2	1.1	2.1	1.0	1.7	1.1	0.8	0.9	1.0	0.4	1.0	1.3	1.9	1.6	1.2	1.1	1.1	1.0
YLR151C	0.30	1.4	1.0	2.4	0.7	1.3	0.7	0.5	1.1	0.9	1.5	1.4	1.4		1.0	1.0	1.4	2.0	1.4
YLR271W	0.78	1.8	1.5	3.0	1.0	1.2	1.2	0.8	1.3	1.0	1.0	1.5	1.7	1.4	1.4	1.8	0.8	1.2	1.6
YMR025W	0.42	1.5	1.0	2.4	1.1	1.8	1.2	0.9	1.2	1.6	1.1	1.2	1.4	1.3	1.3	1.5	0.7	1.2	1.2
YMR135C	1.06	1.3	1.5	2.3	1.4	1.0	1.3	1.0	1.1	1.4	1.5	1.0	1.0	1.0	1.8	1.9	1.1	1.2	1.0
YMR210W	0.56	1.5	0.8	2.2	1.0	1.0	1.0	0.9	0.8	2.2	1.1	1.1	1.1	0.8	0.6	1.9	1.8	1.2	1.0
YNR040W	0.30	1.3	1.1	2.1	0.7	1.5	0.8	0.6	1.2	0.8	1.1	1.3	2.1	1.6	0.9	0.9	0.5	4.9	0.8
YPL039W	0.52	1.5	1.1	2.4	0.6	1.1	1.1	0.9	0.9	1.0	1.1	1.4	1.5	1.5	1.4	1.3	0.6	0.9	1.2
YPL099C	0.92	1.7	1.0	2.1	0.5	1.3	1.1	0.9	0.8	1.7	2.4	1.4	1.4	1.2	0.9	2.0	0.7	1.9	1.1
YPL107W	0.59	1.1	1.0	1.8	0.7	1.7	0.8	0.7	1.1	1.3	1.4	1.5	1.2	1.1	1.0	1.3	1.1	0.8	1.2

| YPL138C | 1.1 | 1.7 | 1.1 | 1.8 | 0.7 | 0.5 | 1.1 | 1.3 | 1.1 | 1.5 | 0.5 | 0.9 | 0.6 | 1.3 | 2.7 | 2.6 | 0.8 | 1.1 | 0.38 |

表2 ミトコンドリアタンパク質遺伝子

化学物質存在下の発現mRNA／不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YJR048W	1.3	0.9	2.2	1.4	0.8	0.5	0.3	0.9	0.5	1.5	1.0	0.8	0.4	2.5	0.6	1.5	1.2	1.2	1.19
YOR226C	1.3	2.2	1.7	1.1	1.3	1.2	1.2	1.2	1.3	5.9	1.5	0.6	0.9	2.7	1.0	0.7	1.0	0.7	0.58
YDL174C	0.9	1.8	0.9	1.3	0.5	1.7	3.6	0.8	0.5	1.7	0.9	2.8	5.9	1.1	0.6	5.1	2.2	4.0	0.63
YBL022C	0.4	0.8	1.2	0.7	1.2	1.2	1.0	0.4	2.8	1.2	1.1	0.9	2.6	1.0	1.5	1.0	0.9	0.7	0.76
YCL057W	0.6	1.5	2.3	0.5	1.1	1.8	1.4	1.8	4.2	2.1	1.6	1.0	3.8	1.0	2.8	1.5	0.9	1.1	0.76
YDR258C	1.6	2.3	2.8	1.4	1.3	2.4	3.9	1.9	4.9	13.3	1.7	1.8	5.2	1.5	0.6	1.0	1.3	1.3	0.87
YGR028W	1.4	3.5	1.0	1.8	0.9	1.5	2.1	1.4	1.7	2.0	1.1	1.5	2.6	1.2	1.0	2.2	1.9	2.6	0.91
YGR244C	1.0	1.2	1.6	1.6	0.8	2.6	3.9	1.8	1.4	1.1	1.8	1.9	2.6	1.2	2.0	2.6	1.9	3.1	1.12
YKL142W	1.8	2.7	3.1	1.4	0.7	3.4	6.9	2.3	5.8	5.9	2.0	1.9	3.3	2.3	1.3	3.3	2.4	3.6	1.68
YNL055C	1.1	1.8	5.5	2.0	0.9	2.6	1.2	0.7	1.1	1.0	1.9	1.7	2.4	0.9	1.1	2.6	1.2	1.7	4.10
YNL071W	0.9	0.9	1.7	1.5	0.6	1.3	1.4	0.9	1.1	1.2	1.6	1.3	2.5	0.8	1.1	1.1	1.0	1.2	1.61
YOR020C	1.4	2.1	1.7	1.7	1.5	2.3	1.7	1.7	5.8	2.6	2.5	0.8	3.0	1.6	1.5	1.4	1.4	1.7	1.66
YOR037W	1.0	1.5	0.6	1.4	1.5	1.6	2.5	1.5	1.3	1.0	1.2	1.2	2.1	1.0	0.9	1.4	1.2	1.6	0.61
YDL198C	1.4	1.0	2.1	1.4	0.7	0.8	1.0	1.1	1.9	2.7	2.5	1.2	2.0	1.7	1.2	1.4	1.5	1.1	1.19
YDR231C	1.1	1.6	1.0	1.5	1.1	2.2	1.7	1.3	1.5	1.4	1.3	1.1	2.4	1.5	1.0	3.0	1.2	1.3	0.92
YER178W	0.8	0.9	3.6	1.0	0.7	2.5	1.6	0.8	1.7	1.3	2.5	1.3	2.4	0.9	1.8	1.0	1.1	0.9	2.18
YFL016C	0.8	1.0	1.6	0.9	1.3	1.3	1.4	0.7	6.4	2.9	1.2	1.0	2.8	0.8	0.8	0.6	1.2	0.9	1.25
YGR008C	2.1	3.0	1.7	3.2	0.9	2.9	3.7	1.9	3.1	2.4	2.6	2.0	3.4	1.3	1.5	2.3	1.7	4.2	3.03
YIL155C	1.0	0.7	1.4	3.7	1.3	1.4	2.2	1.0	2.5	2.9	1.3	1.4	2.0	1.3	1.4	3.8	1.1	1.4	0.51
YJL102W	1.1	0.7	0.4	0.8	1.3	1.6	0.6	0.9	3.1	2.2	0.7	0.8	2.6	1.5	1.5	0.6	1.0	1.1	0.22
YJR045C	0.5	1.9	3.9		0.5	1.2	1.0	0.8	3.2	3.0	1.4	1.0	2.3	0.5	2.3	0.8	0.7	0.9	3.78
YLR259C	0.7	1.0	3.1	1.6	1.1	0.9	1.8	0.8	1.8	2.6	3.0	0.7	2.5	0.8	2.1	1.3	0.8	1.0	2.09
YLR348C	1.1	4.5	1.2	1.2	0.9	1.9	0.9	0.9	2.1	1.3	1.3	0.9	1.9	1.0	2.4	1.1	1.1	1.0	0.64
YML054C	1.5	1.8	1.3	3.4	1.3	1.8	1.2	1.5	4.1	1.8	1.4	1.8	2.8	2.1	1.1	7.8	1.1	1.6	0.25
YMR089C	0.8	1.1	0.9	0.9	0.8	1.2	1.2	1.3	5.6	2.5	1.3	0.8	2.3	0.9	1.8	1.1	0.9	1.1	0.69
YMR152W	0.9	1.3	1.8	0.9	0.8	7.5	0.8	0.8	2.7	1.3	1.2	1.3	1.9	1.1	0.6	1.0	1.5	0.9	0.71
YNL104C	1.1	1.3	3.0	0.9	0.8	0.8	0.6	0.9	1.1	2.0	2.1	1.1	2.1	0.9	2.5	1.5	0.9	0.9	1.69
YOR130C	0.8	1.7	1.4	1.0	1.8	1.6	1.3	0.8	2.0	1.7	0.6	0.9	2.1	1.3	1.0	0.8	1.5	1.1	0.51

Gene																			
YPR024W	0.7	1.0	1.3	1.0	1.3	1.0	1.4	0.7	3.0	1.7	0.9	0.8	2.5	0.7	1.0	1.6	1.1	0.8	0.84
YPR067W	1.6	1.2	1.7	0.9	1.3	1.3	1.5	1.4	3.5	3.4	1.8	1.0	3.0	1.6	1.3	0.8	1.0	1.0	0.66
YBR029C	0.7	0.2	1.8	1.0	1.4	0.8	0.4	0.7	2.0	1.1	0.7	1.3	1.7	0.9	3.5	0.9	0.6	0.8	1.56
YCL009C	0.6	0.9	2.0	0.5	0.7	1.8	1.3	1.1	0.9	1.6	1.5	1.7	1.6	0.7	6.5	0.9	1.1	0.8	0.68
YER026C	0.8	0.6	3.3	1.0	1.2	2.5	1.6	0.8	0.9	1.5	0.9	1.7	1.9	1.1	4.0	1.4	1.7	3.2	4.48
YLR109W	0.8	2.9	6.0	0.9	1.3	2.1	2.6	0.9	2.4	2.7	1.5	1.6	3.2	2.3	3.9	1.8	1.1	1.2	3.86
YMR189W	0.7	0.8	1.9	2.8	0.4	1.9	0.8	0.4	0.7	0.9	8.2	0.6	0.9	1.6	5.6	0.9	1.0	0.8	0.88
YNL169C	0.7	1.4	1.4	1.2	0.7	1.4	0.7	0.8	1.1	1.1	0.8	1.0	1.7	0.9	3.4	0.8	1.1	1.3	1.05
YER069W	1.3	0.8	3.3	1.4	1.5	1.3	1.0	1.5	0.8	10.4	1.5	0.8	1.4	1.3	2.4	1.1	1.1	0.9	0.25
YIL022W	0.8	0.7	1.1	1.6	0.8	1.2	0.7	0.8	1.1	1.3	1.0	0.9	1.2	0.6	2.9	1.1	0.8	0.7	0.52
YBR146W	0.9	0.8	0.7	1.5	1.3	2.6	1.5	1.0	0.9	1.1	1.2	1.0	1.7	1.2	1.0	2.9	1.0	1.2	1.61
YDR019C	1.4	0.5	1.7	4.0	0.9	4.8	1.4	0.7	0.4	0.7	1.8	0.7	1.0	1.6	1.8	1.8	1.2	1.6	2.48
YGR207C	1.5	1.1	1.0	1.1	1.5	2.8	1.7	1.9	2.1	2.6	1.4	1.1	1.0	2.2	0.6	1.8	1.2	1.8	1.49
YMR072W	1.1	1.0	1.4	1.0	1.7	2.4	1.4	1.0	3.0	1.2	1.9	0.8	2.1	1.2	0.8	1.7	0.9	1.9	2.06
YNL037C	1.4	1.8	1.7	1.1	1.7	2.8	2.8	1.0	0.6	3.2	1.4	1.3	1.9	1.3	0.9	1.4	0.9	1.3	2.05
YOR136W	1.0	0.9	3.5	1.0	1.5	3.9	3.2	1.1	0.3	3.4	1.4	1.2	1.5	0.9	1.2	1.3	0.8	1.3	3.20
YPL271W	1.2	3.2	4.1	1.2	1.4	3.3	1.2	0.9	0.6	1.2	1.7	0.8	1.2	1.3	0.8	1.4	1.2	1.3	1.34
YAL044C	1.5	1.1	1.0	3.0	0.8	2.2	1.0	0.8	0.4	0.6	1.4	0.6	1.1	1.4	0.7	1.0	1.4	1.8	4.07
YAL054C	1.2	1.1	1.4	1.6	1.1	2.2	1.1	1.1	8.9	4.1	1.3	1.0	1.8	1.3	0.9	2.5	1.5	1.4	0.24
YBR024W	1.2	1.0	1.1	2.4	1.0	2.2	1.9	1.4	1.3	1.4	1.3	1.1	1.7	1.9	0.8	2.3	1.0	1.2	1.14
YDR405W	1.0	1.1	4.7	1.0	1.1	2.4	1.2	0.9	0.6	1.0	1.0	1.2	1.3	1.1	2.5	1.3	1.3	0.9	0.44
YGL068W	0.9	0.6	1.1	1.4	0.9	2.6	1.5	0.9	0.7	0.8	1.0	1.1	1.0	0.9	0.6	1.8	1.8	1.0	3.35
YGR220C	1.0	0.6	0.9	1.1	1.3	2.1	1.4	1.5	0.7	1.5	1.1	0.9	1.1	1.5	1.1	2.3	0.9	1.1	1.42
YHR037W	1.1	0.9	1.3	1.6	0.9	1.8	1.2	1.0	0.9	2.2	1.7	1.1	1.1	1.1	1.0	2.0	1.0	1.4	1.15
YIL070C	0.7	1.0	0.8	1.4	1.3	2.3	1.6	1.1	0.3	0.6	1.0	0.8	0.7	1.3	1.1	2.4	0.7	1.1	1.69
YIL111W	1.6	1.0	1.8	2.7		2.6	3.2	1.2	1.6	1.1	2.1	0.9	1.7	1.5	1.1	2.5	1.9	3.9	1.52
YKL138C	1.2	0.9	0.6	0.9	1.3	2.3	1.9	1.7	1.1	2.1	1.2	0.8	0.8	1.6	0.6	2.5	1.0	1.3	1.29
YKL150W	1.1	2.0	3.0	1.4	1.4	2.3	2.4	1.3	1.1	1.3	1.9	1.2	1.8	1.4	0.9	6.1	1.2	2.7	2.20
YKR006C	1.0	0.7	1.2	1.2	1.4	2.4	1.6	1.2	1.0	1.5	1.2	0.8	0.9	1.6	0.9	2.3	0.8	1.1	1.39
YLR142W	4.4	2.7	1.1	6.1	1.3	3.1	1.2	2.1	3.1	4.4	3.8	0.8	1.2	2.1	1.6	3.4	1.9	3.2	0.28
YML110C	1.1	0.8	1.9	1.6	0.8	2.6	2.0	1.4	2.7	2.2	1.7	1.1	1.8	1.4	1.3	2.3	1.1	1.6	2.01

Gene																			
YNL284C	1.1	0.7	0.3	1.4	1.8	1.0	2.8	1.6	0.9	1.9	1.3	0.7	1.0	1.5	0.8	1.0	2.4	1.5	1.26
YDR268W	0.8	1.5	0.4	1.2	2.2	1.0	2.4	1.0	1.0	2.0	1.1	0.7	1.0	1.4	1.0	1.1	1.6	1.2	0.47
YMR193W	1.4	1.2	0.5	1.9	2.2	1.7	2.7	1.7	0.8	1.1	1.6	0.6	0.9	1.5	0.8	1.1	3.7	1.7	0.93
YOR374W	1.3	4.5	7.3	3.9	0.9	1.4	1.9	0.9	2.3	5.9	2.6	1.5	1.7	1.1	2.5	1.2	2.5	2.4	1.24
YER061C	0.9	0.9	1.2	2.5	0.8	0.4	0.9	0.7	0.3	0.7	2.2	0.7	0.9	1.0	0.8	1.2	1.8	1.2	0.84
YIL136W	1.1	1.0	1.2	2.5	1.0	1.0	1.8	1.1	3.4	1.7	4.8	0.9	1.7	1.7	1.5	1.3	4.5	3.2	0.95
YLL009C	1.0	1.2	0.6	1.9	1.5	1.2	1.7	1.0	1.3	1.7	3.5	0.7	0.9	1.4	1.1	0.9	2.8	1.2	1.66
YLR163C	1.0	0.9	0.7	1.4	1.6	1.3	1.7	1.4	2.6	2.9	2.2	0.7	1.4	1.3	1.2	0.7	1.4	1.1	0.55
YBR291C	2.0	0.9	1.0	1.5	0.9	1.1	0.9	2.2	0.9	1.0	1.1	0.9	1.0	1.7	0.5	0.9	1.5	1.3	1.19
YIL094C	1.5	0.4	0.8	0.7	1.4	1.2	1.3	3.6	0.3	0.4	1.8	1.0	0.7	1.0	0.5	0.9	0.9	1.0	2.26
YAL015C	1.2	1.1	1.7	1.9	1.1	0.7	1.2	1.1	4.0	2.7	1.4	1.0	1.2	1.6	0.7	1.3	2.0	1.2	0.61
YJR095W	1.2	20.5	1.9	6.7	1.2	1.5	2.0	0.9	0.5	6.3	0.6	1.0	0.8	1.3	0.8	0.7	0.8	0.9	0.23
YKL085W	1.4	2.3	1.6	1.2	1.2	1.9	1.5	1.2	1.9	3.0	1.8	0.8	1.5	1.0	0.5	0.8	1.7	1.3	2.16
YMR177W	1.4	0.8	1.1	1.0	1.6	0.8	1.0	1.2	2.4	3.8	1.4	0.6	0.5	1.2	0.8	0.6	0.5	0.9	0.55
YPL224C	1.0	2.2	1.3	2.5	0.6	1.3	2.2	1.3	3.2	4.2	0.8	1.1	1.3	1.4	1.0	1.1	2.5	1.9	0.64
YER014W	1.0	0.9	0.9	0.6	0.8	4.0		1.2	3.5	1.1	0.9	1.1	1.5	1.2	2.3	1.1	0.8	0.9	0.43
YFR049W	1.5	1.5	1.8	1.2	1.3		1.3	1.3	2.6	1.5	1.7	1.2	1.4	1.2	0.7	1.2	0.9	1.0	0.83
YGR112W	1.0	2.9	1.1	1.3	0.9	1.0	0.8	1.3	2.6	1.3	1.3	0.7	1.1	1.1	1.2	0.7	2.8	1.2	0.31
YLL001W	0.9	0.7	1.2	1.2	0.6	0.9	0.8	1.0	3.5	2.4	0.9	0.7	1.7	1.2	0.9	0.7	1.3	1.3	0.70
YML042W	0.9	1.4	1.5	2.2	1.0	1.2	1.4	1.6	3.8	2.4	2.5	1.0	1.2	1.4	1.7	1.0	4.8	0.9	0.29
YNL213C	1.7	11.6	0.9	1.5	1.3	3.3	1.8	1.8	3.0	1.5	1.5	0.8	0.9	1.8	1.0	0.9	1.7	1.2	0.70
YOR386W	1.0	0.8	1.3	1.5	1.2	1.2	1.2	1.0	4.1	3.0	1.4	1.2	2.4	0.9	1.3	2.1	1.2	1.7	0.46
YBR037C	0.8	0.8	1.3	2.4	0.7	2.9	1.0	1.0	3.0	1.9	1.5	0.7	1.2	1.2	1.0	1.6	2.7	1.3	0.60
YCR024C	1.1	1.0	1.5	0.8	0.8	1.2	1.3	1.2	2.5	1.7	1.4	0.8	0.9	1.3	1.0	0.9	1.2	1.0	0.32
YDR194C	0.7	0.9	0.5	1.0	1.0	2.9	1.1	1.4	2.8	2.2	1.2	0.6	1.2	1.4	1.0	1.2	0.8	0.8	2.19
YER017C	0.8	1.1	1.4	1.3	0.9	1.0	1.7	0.5	2.7	1.8	0.9	1.0	1.5	1.2	2.1	1.1	1.0	1.0	0.43
YGL125W	1.0	3.2	4.3	0.7	0.8	0.5	1.6	0.8	2.1	2.1	1.6	1.0	1.4	1.0	1.9	1.1	1.2	1.1	0.27
YGR029W	1.1	1.4	1.0	1.0	1.0	0.6	1.2	1.7	2.7	1.1	1.2	0.6	1.0	2.0	0.4	0.9	1.1	1.3	0.71
YHL038C	1.0	1.2	1.4	0.8	1.3	0.8	1.1	1.1	4.0	1.7	0.8	1.6	1.3	0.6	0.8	1.0	0.5	0.6	1.95
YKL192C	1.1	1.0	3.7	1.1	1.1	1.8	1.1	0.9	3.5	1.6	1.1	1.2	1.7	1.5	1.2	1.0	2.1	0.8	1.57
YKR052C	0.9	1.1	2.6	2.6	1.0	0.5	1.9	1.1	1.9	3.6	1.3	0.9	1.2	1.1	0.5	0.8	2.5	1.5	1.15

Gene																			
YML078W	1.2	1.9	2.5	1.5	0.7	1.4	1.3	1.4	2.6	2.2	2.4	1.2	1.7	1.7	1.0	1.8	1.3	1.6	1.98
YMR056C	1.1	1.3	1.7	1.0	1.1	0.9	1.4	1.2	1.8	1.1	1.6	0.9	0.9	1.1	0.7	2.4	1.0	1.1	0.72
YNL005C	1.1	1.0	0.6	1.2	1.2	1.7	1.3	1.5	2.0	2.0	1.2	0.9	1.5	1.3	1.0	1.6	0.9	1.5	1.52
YPR047W	1.0	1.0	0.9	1.5	0.9	1.0	1.8	1.2	2.1	1.9	1.1	0.9	1.3	1.0	0.8	2.8	1.0	1.5	0.39
YPR134W	1.1	1.1	0.8	1.7	1.5	0.6	1.5	1.4	1.8	2.3	1.3	0.9	1.1	1.5	0.7	2.4	1.0	1.2	0.65
YGL191W	1.7	1.6	1.4	1.8	0.9	1.6	1.0	1.6	1.1	1.3	1.6	0.9	1.1	1.6	0.7	1.8	1.2	1.7	2.35
YLR038C	2.3	1.1	0.6	2.1	1.8	1.2	1.0	1.4	0.4	0.9	1.4	0.6	0.5	1.6	0.7	2.1	1.2	2.1	1.52
YHR008C	1.3	5.4	4.8	1.8	0.6	1.0	0.7	0.9	1.7	2.4	2.1	0.7	1.2	1.6	1.7	2.2	0.9	1.0	1.04
YPR037C	1.2	2.3	1.6	1.3	0.8	0.9	1.2	1.1	1.5	1.3	0.9	0.9	1.0	1.6	4.1	1.8	1.2	1.7	0.80
YAL039C	1.1	2.2	1.7	1.0	1.1	0.8	1.0	1.2	1.6	2.2	1.1	1.4	1.6	1.2	3.3	2.2	1.4	1.1	0.39
YDL181W	1.3	1.8	1.9	1.8	1.7	1.2	1.1	0.6	0.7	0.8	0.8	0.9	0.9	1.1	0.4	1.1	1.5	1.4	0.85
YPL215W	1.1	1.9	1.0	1.5	0.8	0.7	0.7	1.1	1.7	1.2	1.1	0.7	0.7	1.2	0.6	1.4	1.0	1.1	1.10
YPL262W	1.0	1.7	3.8	1.2	0.6	1.6	1.3	1.0	1.4	5.8	1.4	1.1	1.5	1.2	0.6	1.4	1.1	1.2	0.79
YNL256W	0.7	1.6	0.6	0.6	1.0	0.5	0.6	0.9	0.8	0.6	0.6	0.6	1.3	0.7	0.9	0.4	0.6	0.6	1.09
YBL030C	1.0	0.9	4.5	0.9	0.7	1.1	0.9	0.8	0.4	0.9	1.1	0.9	0.5	0.8	1.8	1.0	1.0	1.1	3.12
YBR221C	0.8	0.7	3.2	1.5	1.3	1.7	1.5	0.8	1.0	1.3	1.2	1.3	1.7	0.8	1.1	1.5	0.9	1.0	3.62
YKL141W	1.6	1.1	4.7	1.7	1.5	1.2	0.5	0.8	0.8	0.5	1.2	0.8	0.8	1.4	0.6	2.8	0.9	1.8	2.84
YKR066C	0.9	1.4	5.5	0.7	1.0	0.9	0.5	0.7	0.7	2.4	1.3	0.9	0.6	1.5	0.6	1.3	0.9	1.1	1.25
YMR083W	1.4	1.7	2.6	1.1	1.5	1.8	1.7	1.1	0.4	1.1	1.6	0.7	0.9	0.8	1.3	1.3	0.9	1.1	2.52
YMR203W	0.8	0.7	3.0	1.4	0.6	1.1	0.8	0.7	0.7	1.2	2.3	0.7	1.1	0.7	1.2	0.9	0.8	0.7	1.62
YBL099W	0.8	0.9	3.1	1.4	1.0	0.9	0.9	0.8	0.9	0.7	2.1	1.0	0.9	0.6	1.0	0.9	0.7	1.2	3.49
YDR178W	2.0	2.0	3.4	2.2	0.9	2.1	0.6	0.9	0.9	0.8	2.0	1.3	1.5	1.5	0.7	3.0	1.2	2.3	2.27
YDR298C	1.3	1.2	2.6	1.3	1.3	1.2	1.0	1.2	1.0	1.6	1.2	1.1	1.2	1.5	0.8	2.0	1.1	1.6	2.69
YEL024W	1.3	0.9	3.8	1.1	1.3	1.1	0.7	1.0	0.7	0.6	0.9	0.8	0.6	1.1	0.6	2.1	1.1	1.5	1.59
YGR082W	1.0	0.9	2.2	1.0	1.3	1.1	0.9	0.8	0.6	0.9	1.3	0.8	0.5	0.9	1.2	1.3	0.9	0.8	1.47
YJL133W	1.0	0.9	2.0	0.9	0.9	1.1	0.5	0.9	0.6	1.4	1.2	0.8	0.8	0.7	0.9	0.6	0.8	0.7	0.91
YJR077C	1.1	1.0	2.0	1.6	0.9	1.1	0.7	0.8	0.6	0.7	1.6	1.0	0.9	0.7	1.5	0.7	1.0	0.8	1.79
YJR121W	0.9	1.1	3.3	1.0	0.8	1.5	1.0	0.7	0.4	1.3	0.9	0.8	1.0	0.7	0.9	1.2	1.1	1.4	3.99
YKL148C	0.9	0.8	3.7	0.7	0.8	0.5	0.6	0.8	0.8	1.7	1.5	0.8	0.8	0.8	0.6	1.1	0.8	1.0	0.54
YLL041C	1.1	0.5	4.6	1.0	1.6	1.2	0.3	0.8	1.7	0.8	1.3	0.8	1.0	1.2	0.4	3.1	1.1	1.7	1.75
YLR304C	0.7	0.6	5.0	0.7	0.6	1.9	0.6	0.6	0.1	2.2	1.6	1.0	0.5	0.7	1.6	1.8	0.5	0.7	2.39

Gene																			
YOR142W	1.0	1.2	3.4	1.0	1.4	1.6	1.0	0.8	1.1	1.5	1.5	0.8	1.4	0.8	1.1	0.8	0.9	1.0	1.31
YOR176W	0.7	2.6	2.7	0.9	1.0	0.9	0.5	1.0	1.0	0.5	1.4	1.3	1.5	0.8	0.8	1.4	1.2	2.1	1.23
YPL135W	0.9	1.2	2.5	1.2	1.6	1.3	1.2	1.0	0.5	2.8	1.3	1.1	1.2	1.1	1.5	1.2	1.5	1.7	1.50
YDR529C	1.8	1.0	0.9	3.2	1.2	0.8	0.5	1.3	0.5	0.6	0.8	0.6	0.7	1.5	0.5	1.8	1.0	2.3	3.11
YGL018C	1.1	1.0	1.8	3.0	1.1	0.4	1.1	0.8	0.5	1.4	1.1	1.0	1.3	1.2	1.1	1.5	0.8	1.0	0.36
YBR003W	0.9	0.8	1.0	1.9	0.7	1.2	1.1	0.9	1.0	1.3	1.3	0.8	1.2	0.8	0.7	2.0	1.1	1.3	1.06
YBR044C	0.8	1.4	0.7	1.9	1.4	1.0	1.5	1.1	0.8	1.2	1.1	0.8	1.2	0.9	0.9	1.4	0.9	1.3	0.57
YBR091C	1.1	1.0	0.6	3.0	1.1	0.7	1.0	1.5	0.7	1.6	0.7	0.8	1.2	1.7	0.9	0.9	1.0	1.0	0.87
YBR185C	1.2	1.0	1.3	2.0	0.8	1.2	1.2	1.1	0.9	1.6	1.2	0.7	1.0	1.7	1.0	1.7	0.8	1.3	0.89
YBR282W	1.0	1.0	0.5	2.3	1.0	1.4	1.2	1.4	1.0	0.9	0.9	0.8	1.3	1.4	1.1	1.5	0.9	1.2	1.36
YDR347W	1.1	0.8	0.9	3.5	0.8	1.2	1.2	1.2	0.8	1.6	0.8	0.8	1.3	1.5	1.0	1.7	0.9	1.2	1.33
YEL039C	1.1	0.7	1.3	5.1	0.9	1.5	0.6	1.1	1.2	1.2	1.7	0.6	0.5	1.4	0.4	3.5	0.7	1.1	1.59
YGR076C	1.3	1.6	0.6	2.3	0.9	1.2	1.7	1.9	1.2	1.8	1.7	1.0	1.4	2.3	0.5	2.3	0.9	1.5	0.97
YGR174C	1.1	1.6	0.6	2.4	1.0	1.4	1.0	1.6	1.8	0.7	1.3	0.9	1.5	1.6	0.7	3.2	1.3	2.3	1.05
YKL003C	1.1	0.7	0.8	1.8	1.0	1.0	1.4	1.2	1.5	2.2	1.7	0.7	1.3	2.0	1.0	2.3	1.0	1.2	0.90
YKL016C	1.5	1.3	0.7	1.7	1.5	0.8	1.5	1.6	1.3	1.8	1.3	1.0	1.3	1.6	0.7	1.8	1.0	1.7	2.08
YKL170W	1.0	0.8	0.5	1.9	1.3	1.5	1.5	1.2	0.9	1.1	0.7	0.8	0.9	1.3	0.8	2.1	1.1	1.4	1.27
YKL194C	0.9	0.7	0.8	1.6	1.8	1.4	2.1	1.1	1.3	1.4	1.6	0.6	1.1	1.4	0.8	1.2	1.1	1.1	0.52
YLR395C	1.8	1.3	2.2	1.9	0.7	0.4		1.0	1.0	0.9	1.5	0.6	0.5	1.7	0.4	1.2	1.2	2.3	1.76
YML120C	1.1	1.2	1.9	1.9	0.6	0.6	0.8	0.9	1.3	1.5	1.3	0.9	1.2	0.8	0.5	1.5	1.0	1.6	0.74
YOR100C	1.3	1.4	1.6	1.7	1.0	1.2	1.6	1.0	2.0	2.6	1.4	0.8	1.0	1.4	4.3	2.8	0.9	0.8	0.32
YOR150W	1.7	1.2	1.0	1.9	0.8	0.9	1.2	1.1	0.8	1.8	1.0	0.8	0.7	1.6	0.8	1.6	0.8	1.3	1.11
YOR187W	1.0	0.5	1.0	2.0	0.6	0.6	1.5	0.7	0.6	1.8	1.4	0.7	0.8	0.6	0.8	1.6	0.8	1.3	3.12
YJL166W	2.1	1.5	1.6	1.3	1.6	1.6	0.8	1.4	1.3	1.2	1.4	0.7	0.8	1.9	1.3	2.3	1.7	4.0	2.31
YMR035W	1.2	1.7	1.5	1.7	0.8	0.8	2.3	1.4	1.7	1.6	1.4	0.5	1.4	1.3	0.5	1.5	2.2	2.4	0.96
YBL038W	1.0	0.9	0.5	1.8	0.9	0.7	8.0	1.6	1.4	1.5	1.5	0.7	1.0	2.3	0.7	1.8	1.2	1.9	1.56
YDR377W	1.3	1.1	1.3	1.4	1.9	1.3	1.1	1.3	1.0	0.9	1.4	0.9	0.7	1.4	0.6	1.8	1.2	2.5	3.00
YGL187C	1.5	0.8	1.6	1.8	1.3	1.1	0.6	0.7	0.6	0.6	0.7	0.8	0.7	0.9	0.3	1.4	0.9	2.4	2.73
YCR046C	1.0	1.2	1.2	1.6	1.0	1.0	1.2	0.9	1.9	1.4	1.5	1.1	1.5	1.3	1.4	2.8	1.3	1.0	0.63
YML129C	1.1	0.9	0.9	1.2	1.7	1.7	1.8	1.2	1.4	2.2	1.2	0.8	1.0	1.4	1.1	2.9	1.3	1.3	1.04
YOL096C	1.1	1.0	1.2	1.6	1.2	1.3	1.7	1.0	1.3	1.4	1.2	1.2	1.4	1.4	1.0	2.3	1.2	1.2	0.64

YBR122C	0.9	0.9	0.3	1.1	1.5	1.1	2.0	1.3	1.1	1.4	1.2	0.7	0.8	1.2	0.7	1.9	0.9	1.5	1.53
YBR251W	1.0	0.9	1.0	1.2	1.3	2.0	1.4	1.3	0.5	1.1	1.5	1.1	1.0	1.6	0.8	3.0	0.9	1.4	1.13
YCR083W	1.1	2.8	1.5	1.8	1.6	2.4	1.8	1.5	1.8	1.8	1.8	1.1	1.8	2.4	1.0	3.1	1.3	1.3	0.98
YDL067C	1.8	1.0	1.6	1.3	2.0	0.9	0.8	1.1	0.9	0.9	1.4	1.0	0.6	1.4	0.7	1.8	1.2	1.7	1.85
YDR079W	1.3	1.1	0.8	1.1	1.2	1.7	1.3	2.6	0.9	0.8	1.3	1.1	1.3	1.5	0.6	2.6	1.1	1.3	1.06
YGR062C	0.9	1.0	0.7	1.4	0.7	0.9	1.3	0.8	1.0	1.4	1.6	1.0	1.5	1.2	0.5	1.8	0.9	1.1	0.54
YJL096W	1.0	1.0	0.8	1.3	1.9	1.0	1.7	1.3	1.0	1.4	1.2	1.0	0.7	2.1	1.0	2.2	1.1	1.2	1.21
YJL180C	0.9	1.6	1.1	1.3	1.5	1.3	1.6	1.0	1.4	1.4	1.4	0.8	1.2	1.4	0.6	2.0	0.9	1.4	1.08
YLR295C	1.4	1.1	1.1	1.7	2.2	1.1	1.1	1.2	1.4	1.4	1.3	0.5	0.8	1.2	0.5	2.4	0.9	1.5	1.07
YMR023C	1.4	1.3	0.5	1.9	1.7	1.1	1.9	1.4	1.5	1.2	0.8	0.7	1.1	1.6	0.7	2.1	1.1	1.4	0.48
YMR267W	0.8	1.8	0.7	0.9	1.0	1.4	1.2	1.5	0.4	2.6	1.0	0.8	0.7	1.0	0.9	2.6	0.9	1.3	0.94
YNL073W	0.8	1.4	0.9	1.7	0.6	0.5	1.1	1.0	0.9	0.8	1.1	0.7	1.2	0.7	0.7	1.8	0.8	1.0	0.52
YOR316C	0.7	2.5	1.5	1.5	1.0	0.9	1.4	0.8	1.6	1.8	2.4	1.1	1.6	1.0	1.5	2.2	0.8	1.0	0.93
YPL040C	1.1	1.0	0.8	1.7	0.8	1.1	0.8	1.1	0.2	1.2	0.9	0.9	1.0	1.1	1.1	2.7	0.8	1.1	0.33
YPL134C	1.5	1.0	1.6	1.6	1.4	1.2	1.2	1.3	0.6	0.8	1.7	0.8	1.0	1.4	1.1	3.3	1.3	1.3	0.70

表3　遺伝子修復系タンパク質遺伝子

化学物質存在下での発現mRNA／不存在下での発現mRNA

酵母遺伝子

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YFL014W	3.4	5.1	5.7	11.0	1.0	9.3	5.5	3.4	13.1	5.8	5.0	4.3	15.2	7.3	6.3	14.2	1.5	8.8	2.14
YGL163C	0.9	0.8	0.6	4.3	1.5	0.9	1.0	1.4	5.8	2.3	0.4	0.9	3.1	1.6	1.8	1.0	0.9	0.8	0.26
YKL145W	0.8	1.4	1.2	1.0	1.4	2.1	1.6	1.5	3.5	2.7	1.8	1.3	2.7	1.0	1.3	1.2	1.1	1.5	2.29
YIL153W	0.8	1.4	1.3	2.9	1.0	0.9	1.6	0.5	4.3	1.1	1.0	1.0	1.2	1.0	2.8	1.3	0.9	0.7	0.32
YIR002C	0.8	1.1	0.5	0.6	1.2	2.2	1.3	1.2	1.7	1.4	0.8	1.3	1.2	1.1	1.1	1.4	1.1	1.2	0.58
YAL015C	1.2	1.1	1.7	1.9	1.1	0.7	1.2	1.1	4.0	2.7	1.4	1.0	1.2	1.6	0.7	2.0	1.1	1.2	0.61
YBR073W	0.7	1.0	0.9	0.7	1.2	0.7	0.6	1.1	2.5	1.8	0.5	0.9	1.4	1.0	1.3	0.8	0.7	0.8	0.63
YDL200C	1.4	2.0	1.2	1.8	1.1	0.6	1.7	1.5	2.4	1.8	1.2	1.1	1.1	1.8	0.7	1.8	0.9	1.6	0.79
YGL058W	1.1	1.1	0.6	0.7	1.0	1.0	0.0	1.3	3.7	1.8	0.8	1.3	1.0	1.3	1.3	0.6	1.1	0.7	1.07
YIL143C	0.9	0.8	1.1	0.9	0.8	1.4	0.8	0.9	7.1	3.5	1.5	0.9	1.7	1.0	1.3	1.1	0.9	0.9	0.56
YML032C	0.8	0.9	1.1	0.7	1.0	0.9	0.8	0.9	3.0	1.1	1.0	0.9	1.8	1.0	1.7	1.2	1.0	1.0	0.66
YNL250W	0.9	2.2	0.8	1.2	0.8	0.8	1.2	1.3	4.2	2.3	1.0	1.4	1.3	1.6	1.3	1.4	1.0	1.0	0.31
YOR386W	1.0	0.8	1.3	1.5	1.2	3.3	1.8	1.0	4.1	3.0	1.4	1.2	2.4	0.9	1.3	1.2	2.1	1.7	0.46
YBL019W	0.9	9.1	0.7	1.2	1.0	1.0	1.2	1.2	2.6	1.4	1.0	0.8	0.9	1.1	0.6	1.9	0.8	1.1	0.38
YDR369C	1.1	1.1	2.4	1.1	1.0	0.6	0.4	1.0	2.4	1.8	1.1	0.9	0.1	0.7	1.2	0.6	0.8	0.7	1.88
YEL037C	0.9	2.0	0.9	1.0	0.5	0.6	0.8	0.8	2.6	1.2	1.0	1.1	2.0	1.0	1.6	0.5	1.0	0.8	0.82
YER162C	1.0	1.2	1.0	1.1	0.9	0.7	0.5	0.9	2.8	1.6	0.5	0.4	0.8	0.8	1.0	1.0	1.2	0.9	0.45
YGR258C	0.7	0.9	0.7	0.7	1.5	2.2	1.5	0.8	2.5	1.5	0.3	0.9	1.9	1.2	1.1	1.2	1.0	0.9	0.37
YJR052W	1.1	1.0	1.1	1.0	1.0	1.4	1.2	1.7	4.5	2.3	1.1	1.1	1.8	1.4	1.4	1.4	1.0	1.3	0.36
YOR005C	1.2	1.8	1.0	0.8	1.3	1.3	1.4	1.3	2.4	1.5	1.2	0.9	2.1	1.2	0.8	1.0	1.1	1.0	0.29
YPL022W	0.7	0.8	0.7	1.2	0.8	5.2	0.8	1.0	2.1	1.6	0.8	0.7	1.4	0.9	0.9	0.9	0.9	0.9	0.72
YPL164C	1.1	0.7	1.1	1.0	1.2	1.7	0.9	1.0	2.1	2.0	1.1	0.9	1.0	0.9	1.3	1.4	1.0	1.0	0.25
YPL194W	0.9	1.4	0.4	1.1	1.3	1.1	1.5	1.3	9.6	3.1	0.9	0.9	1.4	1.1	1.4	0.9	1.0	0.8	0.22
YPR025C	1.1	0.8	0.6	0.6	1.6	0.9	1.4	1.3	1.9	1.7	0.9	0.7	1.1	1.3	1.1	1.3	1.1	1.5	0.87
YGR180C	3.1	1.1	1.9	1.0	2.0	0.6	0.5	1.0	1.4	1.5	1.0	0.9	0.9	0.9	1.3	1.2	1.0	1.9	3.90
YEL019C	1.1	1.6	0.3	0.7	0.9	1.5	1.2	0.9	0.7	0.7	1.2	1.0	1.0	1.7	1.5	0.3	0.8	0.9	0.27
YLR288C	1.2	0.8	1.6	1.8	1.7	1.2	1.3	1.5	0.8	1.3	1.4	0.6	0.7	1.2	0.9	1.5	1.2	1.3	0.31
YMR284W	1.1	1.0	0.5	2.0	0.8	0.8	0.8	1.1	1.6	1.8	1.1	0.6	1.0	1.2	0.7	1.3	1.1	1.3	0.54

Gene																			
YMR035W	0.96	2.4	2.2	1.5	1.1	1.3	1.4	0.5	1.5	1.6	1.7	1.4	2.3	1.5	0.8	1.7	1.5	1.7	1.2
YOL043C	0.38	1.0	1.0	2.5	0.6	1.5	0.9	0.8	1.2	1.8	1.0	0.9	1.0	0.8	1.2	1.7	0.8	0.9	1.1
YGR231C	1.74	1.5	1.0	2.5	1.3	2.2	3.9	1.3	1.6	2.3	3.2	1.1	2.1	1.9	1.3	1.0	0.7	1.2	1.0
YHR164C	0.44	1.0	0.8	1.1	2.2	1.3	2.0	1.2	0.6	3.1	1.3	1.1	0.8	1.4	0.9	0.7	0.9	1.3	0.9
YJR046W	0.45	0.7	0.7	0.8	1.1	1.0	3.0	0.9	0.6	2.4	6.0	0.9	0.9	2.0	0.8	1.5	1.2	1.2	1.0
YLR103C	1.32	1.4	1.1	1.5	0.8	1.0	3.0	1.6	0.9	0.5	0.8	1.4	1.3	1.1	1.0	0.4	1.1	1.5	0.8
YMR072W	2.06	1.9	0.9	1.7	0.8	1.2	2.1	0.8	1.9	1.2	3.0	1.0	1.4	1.6	1.7	1.0	1.4	1.0	1.1
YDR054C	1.18	1.4	0.8	1.4	1.6	1.1	2.5	1.0	1.9	3.2	2.9	1.5	1.1	1.9	0.7	1.4	0.7	1.0	1.3
YAR007C	1.03	1.0	0.8	0.9	1.2	1.4	1.7	0.9	0.9	1.7	4.1	1.1	0.8	1.6	1.5	0.5	0.8	1.9	0.7
YGL058W	1.07	0.7	1.1	0.6	1.3	1.3	1.0	1.3	0.8	1.8	3.7	1.3	0.0	1.5	1.0	0.7	0.6	1.1	1.1
YIL036W	0.66	1.3	1.1	1.3	0.8	1.1	1.9	1.2	1.2	2.7	3.6	1.1	1.4	1.8	0.9	1.8	1.3	1.3	0.9
YNL213C	0.70	1.2	0.9	1.7	1.0	1.8	0.9	0.8	1.5	1.5	3.0	1.8	1.4	1.7	1.3	1.5	0.9	11.6	1.7
YNL312W	2.05	1.1	1.2	0.8	0.8	1.1	0.7	0.9	1.4	2.5	3.7	1.2	0.5	1.7	1.4	0.7	1.6	1.0	0.9
YNL261W	0.91	1.0	0.8	1.1	0.7	1.4	0.8	0.8	0.8	1.5	2.3	1.1	1.0	1.3	0.7	1.3	0.6	1.3	1.0
YGR180C	3.90	1.9	1.0	1.2	1.3	0.9	0.9	0.9	1.0	1.5	1.4	1.0	0.5	1.0	2.0	1.0	1.9	1.1	3.1
YJL026W	3.74	2.1	1.4	1.6	1.1	1.0	1.2	1.0	1.3	1.1	1.0	1.2	0.5	1.0	1.7	1.0	2.9	2.4	2.5
YDL017W	0.38	1.0	0.8	1.0	1.3	1.3	0.9	0.8	0.8	1.8	0.8	1.2	1.1	1.1	1.2	1.3	1.2	2.3	0.8
YML058W	2.14	1.5	1.3	1.3	2.5	1.1	1.4	0.9	3.3	1.2	1.1	0.7	0.6	1.3	0.6	1.9	5.8	1.2	1.9
YLR233C	0.43	1.2	1.0	1.1	1.1	1.1	1.0	0.9	0.8	0.5	0.6	1.1	0.8	0.8	1.2	2.0	2.0	0.9	1.1
YMR284W	0.54	1.3	1.1	1.3	0.7	1.2	1.0	0.6	1.1	1.8	1.6	1.1	0.8	1.2	0.8	2.0	0.5	1.0	1.1
YGL163C	0.26	0.8	0.9	1.0	1.8	1.6	3.1	0.9	0.4	2.3	5.8	1.4	1.0	0.9	1.5	4.3	0.6	0.8	0.9
YGL127C	0.54	1.2	1.0	1.3	1.5	1.0	1.7	1.4	1.0	1.5	1.2	0.9	1.0	0.6	1.3	1.7	1.3	1.9	1.0
YMR072W	2.06	1.9	0.9	1.7	0.8	1.2	2.1	0.8	1.9	1.2	3.0	1.0	1.4	2.4	1.7	1.0	1.4	1.0	1.1
YGL249W	0.20	1.0	1.0	1.4	0.7	1.9	0.8	0.8	0.6	2.4	0.3	0.9	1.2	2.5	1.1	0.8	0.5	0.8	1.4
YBR272C	0.52	1.2	1.1	1.7	0.5	1.0	1.3	0.5	1.1	2.7	1.7	1.1	1.9		1.1	1.0	1.3	1.8	0.8
YDL059C	0.63	0.9	0.8	1.5	0.7	4.7	1.7	1.3	2.0	7.8	10.5	1.2	1.1	1.2	1.2	1.7	1.4	5.1	2.6
YAR007C	1.03	1.0	0.8	0.9	1.2	1.4	1.7	0.9	0.9	1.7	4.1	1.1	0.8	0.6	1.5	0.5	0.8	1.9	0.7
YBR073W	0.63	0.8	0.7	0.8	1.3	1.0	1.4	0.9	0.5	1.8	2.5	1.1	0.6	0.7	1.2	0.7	0.9	1.0	0.7
YML032C	0.66	1.0	1.0	1.2	1.7	1.0	1.8	0.9	1.0	1.1	3.0	0.9	0.8	0.9	1.0	0.7	1.1	0.9	0.8
YNL250W	0.31	1.0	1.0	1.4	1.3	1.6	1.3	1.4	1.0	2.3	4.2	1.3	1.2	0.8	0.8	1.2	0.8	2.2	0.9
YCR014C	0.34	0.9	1.0	1.5	0.7	1.0	1.2	0.7	0.8	1.0	2.4	1.0	1.1	1.1	1.2	0.6	1.2	1.0	0.8

YDR369C	1.1	1.1	2.4	1.1	1.0	0.6	0.4	1.0	2.4	1.8	1.1	0.9	0.1	0.7	1.2	0.6	0.8	0.7	1.88
YIL072W	0.8	3.1	1.1	2.6	1.5	1.2	1.7	1.4	2.9	2.1	1.8	1.1	1.4	2.0	1.4	1.4	1.0	1.1	0.23
YOR005C	1.2	1.8	1.0	0.8	1.3	1.3	1.4	1.3	2.4	1.5	1.2	0.9	2.1	1.2	0.8	1.4	1.1	1.0	0.29
YPL164C	1.1	0.7	1.1	1.0	1.2	1.7	0.9	1.0	2.1	2.0	1.1	0.9	1.0	0.9	1.3	1.4	1.0	1.0	0.25
YPL194W	0.9	1.4	0.4	1.1	1.3	1.1	1.5	1.3	9.6	3.1	0.9	0.9	1.4	1.1	1.4	0.9	1.0	0.8	0.22
YGR180C	3.1	1.1	1.9	1.0	2.0	0.6	0.5	1.0	1.4	1.5	1.0	0.9	0.9	0.9	1.3	1.2	1.0	1.9	3.90
YEL019C	1.1	1.6	0.3	0.7	0.9	1.5	1.2	0.9	0.7	0.7	1.2	1.0	1.0	1.7	1.5	0.3	0.8	0.9	0.27
YML058W	1.9	1.2	5.8	1.9	0.6	0.6	0.6	0.7	1.1	1.2	3.3	0.9	1.4	1.1	2.5	1.3	1.3	1.5	2.14
YLR288C	1.2	0.8	1.6	1.8	1.7	1.2	1.3	1.5	0.8	1.3	1.4	0.6	0.7	1.2	0.9	1.5	1.2	1.3	0.31
YMR284W	1.1	1.0	0.5	2.0	0.8	0.8	0.8	1.1	1.6	1.8	1.1	0.6	1.0	1.2	0.7	1.3	1.1	1.3	0.54
YMR096W	1.7	1.7	1.1	0.8	1.0	2.2	1.9	2.0	3.3	3.7	1.5	1.4	8.4	4.7	28.9	2.2	2.2	1.0	0.62
YGL091C	2.0	1.8	1.0	1.7	0.8	1.6	1.3	1.8	10.8	6.0	2.1	1.2	2.5	3.1	0.7	1.0	1.4	1.8	0.96

表4　エネルギー系タンパク質遺伝子

化学物質存在下での発現mRNA／不存在下での発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YCR107W	12.1	2.6	1.8	1.6	0.7	1.5	1.5	15.6	196.6	34.0	23.0	0.9	4.0	8.3	4.8	3.1	1.3	1.1	0.59
YDL243C	14.5	2.7	2.4	1.0	1.1	2.2	1.6	11.8	64.2	29.6	19.6	1.1	4.1	12.0	4.2	3.0	1.8	1.5	0.76
YFL056C	19.0	2.3	2.3	1.5	0.9	0.6	1.4	18.5	162.3	31.3	68.3	1.0	4.7	7.8	5.0	3.4	1.0	1.1	0.55
YFL057C	20.9	5.9	1.5	1.8	0.9	1.2	1.8	18.0	51.8	46.1	27.7	1.0	4.1	23.4	3.1	3.9	1.6	1.3	0.71
YJR155W	7.6	3.7	1.4	2.5	0.7	1.4	1.7	10.6	38.2	18.8	15.4	1.0	5.7	9.4	2.6	5.6	1.3	1.4	0.64
YNL331C	8.6	3.6	1.3	1.0	1.6	1.8	1.9	13.1	42.6	36.3	21.8	0.9	3.1	7.5	2.3	4.0	1.7	1.3	0.58
YOL165C	10.1	4.5	1.8	0.9	0.9	1.7	1.4	17.8	46.9	23.3	17.6	0.8	3.7	9.1	3.0	1.8	1.6	1.0	0.69
YPL171C	15.2	4.1	3.5	2.2	1.1	1.3	1.7	20.5	60.0	50.6	37.0	1.4	2.4	9.3	1.4	1.2	2.4	1.5	0.47
YDL021W	5.1	1.7	2.4	3.7	1.7	6.5	5.9	2.7	2.5	7.4	4.7	2.4	5.3	3.7	0.7	7.3	1.9	3.2	0.47
YGR043C	2.6	3.7	3.2	7.9	0.9	16.3	6.5	2.6	10.9	8.4	3.6	3.3	6.9	4.1	3.0	13.7	1.6	4.8	0.66
YHR179W	3.3	2.3	2.6	0.7	1.2	3.7	1.9	3.3	3.6	5.8	2.0	2.2	2.6	5.8	2.7	1.0	1.9	1.6	2.69
YJR048W	1.3	0.9	2.2	1.4	0.8	0.5	0.3	0.9	0.5	1.5	1.0	0.8	0.4	2.5	0.6	1.5	1.2	1.2	1.19
YKR097W	1.6	2.4	1.3	3.3	1.1	1.7	3.7	2.5	1.9	3.3	0.8	1.8	17.5	2.1	2.5	2.2	1.1	1.5	0.16
YML087C	1.8	1.6	0.8	2.5	0.9	0.9	1.1	1.3	1.9	4.9	1.6	0.8	1.5	2.1	0.3	2.0	0.7	0.8	0.52
YPL088W	3.3	1.3	0.6	2.5	1.5	7.1	3.7	1.9	0.6	2.8	1.1	3.6	4.8	1.6	3.2	4.3	9.1	8.3	0.69
YDL174C	0.9	1.8	0.9	1.3	0.5	1.7	3.6	0.8	0.5	1.7	0.9	2.8	5.9	1.1	0.6	5.1	2.2	4.0	0.63
YCR012W	1.2	1.5	5.1	1.2	1.1	2.5	1.4	0.8	1.4	1.5	1.8	1.2	4.1	0.9	1.4	1.4	0.8	1.3	4.48
YFR053C	1.8	1.4	3.0	2.2	0.9	3.2	2.1	2.8	0.6	1.1	1.5	1.7	3.0	0.6	0.6	3.0	1.4	2.2	4.17
YGL062W	0.6	1.3	1.1	0.6	0.9	1.0	1.3	0.8	1.6	2.5	0.7	1.6	4.5	1.2	2.7	1.5	1.1	0.9	0.77
YGR192C	1.4	1.0	3.8	1.0	1.1	1.7	1.7	1.1	0.9	1.3	2.3	2.2	3.4	1.0	1.9	1.1	1.1	1.3	7.49
YGR244C	1.0	1.2	1.6	1.6	0.8	2.6	3.9	1.8	1.4	1.1	1.8	1.9	2.6	1.2	2.0	2.6	1.9	3.1	1.12
YGR254W	1.2	1.3	3.8	1.3	1.2	1.9	1.5	1.4	0.8	1.2	1.3	1.7	3.1	0.6	2.4	1.4	1.3	1.2	7.01
YIL160C	0.8	2.4	2.3	3.5	1.0	1.6	1.1	1.2	3.2	3.8	2.4	1.0	2.3	1.5	5.6	8.8	2.4	3.0	0.27
YJL052W	1.6	0.9	4.0	1.8	0.7	2.4	2.1	1.5	1.6	2.0	4.3	2.4	5.6	1.3	2.3	2.3	1.2	1.9	6.19
YJR009C	1.1	1.7	5.6	1.0	1.2	1.6	1.6	1.1	1.1	1.3	1.1	1.5	2.7	1.0	2.1	1.5	1.1	1.3	5.86
YLR345W	1.4	1.4	1.4	1.2	1.2	1.6	1.2	1.4	4.5	4.0	2.5	1.6	3.5	1.5	1.0	1.2	1.2	1.4	2.65
YMR118C	1.3	2.9	1.4	1.6	1.2	2.0	1.0	1.0	9.3	1.4	0.7	0.8	4.2	0.9	0.9	8.1	0.8	1.0	0.38
YNL071W	0.9	0.9	1.7	1.5	0.6	1.3	1.4	0.9	1.1	1.2	1.6	1.3	2.5	0.8	1.1	1.1	1.0	1.2	1.61

YNL241C	1.3	2.5	4.3	1.0	0.8	0.9	3.2	0.9	3.4	7.4	3.0	2.0	4.9	1.1	7.0	2.8	1.0	1.0	0.68
YPL240C	0.7	1.4	2.4	0.9	1.3	1.2	1.4	1.2	3.5	2.6	1.0	0.8	2.9	0.7	1.2	0.7	0.8	1.0	4.83
YAL060W	1.1	1.8	3.2	2.7	1.2	4.2	3.3	0.9	0.6	2.5	2.4	0.8	2.2	0.9	0.9	3.2	1.1	1.8	2.39
YCL040W	0.9	5.6	10.1	2.0	0.5	3.5	2.9	0.7	0.9	3.0	8.2	2.3	5.6	0.7	3.4	3.1	1.4	1.7	1.98
YDR001C	1.0	2.2	2.6	1.0	1.1	2.2	1.5	0.9	2.2	3.0	0.7	1.1	2.8	1.0	4.4	1.9	1.1	1.6	0.75
YDR231C	1.1	1.6	1.0	1.5	1.1	2.2	1.7	1.3	1.5	1.4	1.3	1.1	2.4	1.5	1.0	3.0	1.2	1.3	0.92
YER178W	0.8	0.9	3.6	1.0	0.7	2.5	1.6	0.8	1.7	1.3	2.5	1.3	2.4	0.9	1.8	1.0	1.1	0.9	2.18
YGR008C	2.4	3.0	1.7	3.2	0.9	2.9	3.7	1.9	3.1	2.4	2.6	2.0	3.4	1.3	1.5	2.3	1.7	4.2	3.03
YGR256W	1.2	1.5	2.3	0.8	0.9	6.2	1.4	2.2	3.4	2.5	2.7	1.5	3.9	1.1	2.7	5.3	1.1	0.8	0.94
YHL008C	0.9	0.5	1.0	1.6	0.8	0.8	0.7	0.9	1.6	1.7	1.4	0.8	1.8	1.0	1.8	0.9	0.8	0.9	0.40
YHR174W	1.1	1.4	3.3	1.2	1.3	1.5	1.6	1.2	1.0	1.5	1.4	1.5	3.6	0.6	2.0	1.1	1.0	1.2	7.34
YIL045W	1.7	1.4	1.9	2.2	1.3	1.7	1.6	1.1	2.1	3.2	1.2	1.5	2.0	1.6	0.6	2.9	1.1	1.8	0.37
YKL035W	1.0	0.9	4.8	1.2	0.8	1.2	0.6	1.0	0.8	1.2	2.1	1.0	2.0	0.6	1.0	1.5	1.0	1.9	2.54
YKL152C	1.4	1.3	1.9	0.9	1.3	1.6	1.5	1.0	0.9	1.5	1.7	1.5	2.7	1.0	1.8	2.0	1.1	1.7	3.28
YML054C	1.5	1.8	1.3	3.4	1.3	1.8	1.2	1.5	4.1	1.8	1.4	1.8	2.8	2.1	1.1	7.8	1.1	1.6	0.25
YML100W	0.8	2.7	10.6	1.4	0.9	2.8	2.2	0.7	1.7	1.4	3.2	1.2	3.8	1.2	1.8	2.2	1.0	1.5	0.88
YML125C	0.8	0.9	0.7	0.7	0.9	1.3	1.0	1.3	2.6	1.6	1.0	1.0	2.2	1.6	1.9	0.7	1.2	0.9	2.21
YMR089C	1.0	1.1	0.9	0.9	0.8	1.2	1.2	1.3	5.6	2.5	1.3	0.8	2.3	0.9	1.8	1.1	0.9	1.1	0.69
YMR105C	2.0	3.0	5.0	4.2	0.9	2.8	2.8	1.1	0.6	2.9	3.0	1.7	3.3	1.0	0.9	2.0	1.6	2.6	1.21
YNL237W	1.3	1.3	1.5	1.0	1.5	4.6	4.9	1.1	0.9	2.1	1.5	1.8	3.2	1.3	1.6	4.4	1.3	1.1	0.21
YOL126C	1.1	0.8	1.0	1.6	0.7	1.5	1.4	0.9	0.8	2.4	1.8	1.1	2.6	1.2	1.4	2.5	1.6	2.4	0.59
YOR347C	0.9	0.9	2.1	2.2	0.7	0.9	0.9	0.8	0.5	0.9	1.4	1.2	1.8	0.9	2.0	1.4	1.7	1.3	1.31
YPR026W	0.9	1.2	5.0	1.3	0.8		1.3	1.0	0.9	3.1	1.6	1.2	2.3	1.5	3.1	2.5	0.9	1.3	0.26
YAL038W	1.0	1.0	3.0	1.4	1.4	1.3	0.9	1.1	0.1	1.1	1.0	1.2	1.8	0.5	3.1	0.9	1.0	1.0	7.02
YDR380W	0.8	0.8	0.8	1.7	1.1	0.4	0.5	0.2	0.2	0.3	0.4	0.4	0.4	0.6	2.4	0.2	0.8	0.8	1.04
YLR273C	1.5	1.0	1.3	2.4		1.2	1.2	1.3	2.8	2.4	1.4	0.9	1.7	1.3	2.6	1.5	1.0	1.0	0.20
YGR207C	1.5	1.1	1.0	1.1	1.5	2.8	1.7	1.9	2.1	2.6	1.4	1.1	1.0	2.2	0.6	1.8	1.2	1.8	1.49
YNL037C	1.4	1.8	1.7	1.1	1.7	2.8	2.8	1.0	0.6	3.2	1.4	1.3	1.9	1.3	0.9	1.4	0.9	1.3	2.05
YOR136W	1.0	0.9	3.5	1.0	1.5	3.9	3.2	1.1	0.3	3.4	1.4	1.2	1.5	0.9	1.2	1.3	0.8	1.3	3.20
YPL271W	1.2	3.2	4.1	1.2	1.4	3.3	1.2	0.9	0.6	1.2	1.7	0.8	1.2	1.3	0.8	1.4	1.2	1.3	1.34
YAL054C	1.2	1.1	1.4	1.6	1.1	2.2	1.1	1.1	8.9	4.1	1.3	1.0	1.8	1.3	0.9	2.5	1.5	1.4	0.24

Gene																			
YEL011W	2.0	1.6	1.7	6.3	1.1	2.8	2.7	0.9	2.5	1.6	3.7	1.5	1.5	1.5	0.4	2.4	1.4	2.5	0.89
YFR015C	1.2	0.8	3.2	2.1	1.2	3.0	7.3	0.7	0.3	1.8	3.9	0.4	2.5	3.1	0.4	2.4	1.3	1.2	0.66
YGL253W	0.8	1.0	3.2	0.7	1.3	2.4	1.7	1.1	0.3	1.4	1.0	1.2	1.5	0.5	0.8	0.4	0.7	0.8	4.63
YIL111W	1.9	1.0	1.8	2.7		2.6	3.2	1.2	1.6	1.1	2.1	0.9	1.7	1.5	1.1	2.5	1.9	3.9	1.52
YKL150W	1.1	2.0	3.0	1.4	1.4	2.3	2.4	1.3	1.1	1.3	1.9	1.2	1.8	1.4	0.9	6.1	1.2	2.7	2.20
YPR006C	1.9	1.5	0.5	1.9	2.0	2.4	2.8	1.5	1.5	3.9	2.4	1.1	1.8	1.2	0.7	1.6	1.8	2.1	0.46
YBR145W	1.5	0.7	2.8	0.9	1.1	11.5	58.8	1.0	0.1	1.1	1.1	1.0	2.0	2.2	1.2	3.6	1.7	2.0	2.17
YBR299W	2.0	0.9	1.1	3.5	1.6	0.8	3.6	2.2	1.1	5.3	2.4	1.2	0.7	1.4	0.6	3.9	1.0	1.1	0.32
YEL020C	1.0	1.5	0.8	2.9	1.5	1.3	2.4	1.2	1.4	1.1	1.3	0.8	1.2	1.0	1.4	2.1	1.2	1.3	0.31
YGL134W	1.2	1.3	0.5	0.8	1.4	1.2	2.3	1.4	1.1	1.4	1.1	0.9	0.7	1.1	0.5	1.7	0.9	1.3	0.53
YOL157C	1.0	1.1	1.3	2.5	1.4	0.9	2.7	1.4	2.3	4.8	1.2	1.2	1.4	1.1	1.1	3.5	1.4	1.3	0.41
YBR126C	0.8	1.9	5.6	1.2	0.7	2.9	2.3	0.6	1.7		1.1	1.3	2.1	0.7	1.0	1.7	1.5	1.3	1.96
YCR005C	1.2	1.9	2.0	1.2	0.9	1.6	4.4	1.2	1.5	1.5	2.1	0.5	0.7	0.8	0.7	0.7	1.6	1.7	2.38
YIL172C	1.1	1.1	1.6	1.7		1.3	2.5	1.6	2.8	7.1	1.0	1.4	2.0	1.3	1.4	2.8	1.1	1.2	0.42
YOR221C	0.8	1.0	0.9	1.1	1.7	0.8	2.1	0.9	1.4	1.7	1.1	0.8	1.0	1.1	1.0	1.4	0.9	1.2	0.39
YBR196C	0.8	0.6	3.9	1.4	0.8	0.8	1.4	1.1	0.3	0.9	2.3	1.0	1.4	0.5	1.9	1.1	0.8	1.0	6.60
YEL047C	1.3	1.9	3.2	1.2	0.8	0.6	1.3	1.0	2.7	2.3	4.2	1.2	1.6	1.1	1.0	1.3	0.9	1.0	1.02
YMR318C	1.8	2.4	2.2	0.7	1.2	2.1	0.8	3.6	2.3	4.8	3.6	0.8	1.8	1.7	1.5	1.1	1.1	1.1	3.17
YER061C	0.9	0.9	1.2	2.5	0.8	0.4	0.9	0.7	0.3	0.7	2.2	0.7	0.9	1.0	0.8	1.8	1.2	1.2	0.84
YJL045W	1.8	2.2	1.6	5.3	0.7	0.6	0.7	0.9	9.7	1.6	2.3	1.1	1.6	1.2	3.4	2.4	0.9	0.9	0.42
YLL009C	1.0	1.2	0.6	1.9	1.5	1.2	1.7	1.0	1.3	1.7	3.5	0.7	0.9	1.4	1.1	2.8	0.9	1.2	1.66
YPR160W	1.4	3.8	3.6	3.3	0.7	4.5	1.8	0.9	0.9	1.3	4.4	2.1	2.2	1.1	1.4	5.3	1.0	2.9	1.42
YDL085W	1.2	1.9	1.2	2.0	1.2	1.2	1.4	1.0	7.8	3.4	2.7	0.8	1.7	1.2	0.7	4.5	0.9	0.9	0.23
YJL221C	1.1	1.0	1.1	1.3	0.9	6.6	2.5	1.8	2.7	4.4	0.8	1.1	1.4	1.1	1.1	3.3	1.1	1.4	0.41
YKL085W	1.5	2.3	1.6	1.2	1.2	1.9	1.5	1.2	1.9	3.0	1.8	0.8	1.5	1.0	0.5	1.7	0.9	1.3	2.16
YLR174W	1.2	1.5	1.7	2.1	0.9	0.9	1.6	1.1	2.5	8.3	1.3	1.3	1.8	1.7	0.8	4.6	0.9	1.2	0.41
YNL009W	1.1	1.9	2.0	1.4	1.4	1.1	1.2	1.1	1.4	3.3	1.3	0.9	1.3	1.3	2.7	3.3	1.0	2.3	0.45
YNL117W	0.9	4.7	1.7	0.8	0.8		1.1	1.7	12.8	4.4	1.4	0.9	1.3	2.0	2.6	1.6	1.1	0.9	0.24
YAL061W	1.7	2.4	3.3	3.8	1.0	1.0	2.0	0.8	5.5	1.4	4.1	0.7	1.4	0.7	0.6	1.1	1.4	1.2	0.88
YBR117C	0.8	1.6	1.5	1.4	0.9	2.3	1.0	0.7	5.9	1.5	0.4	0.8	2.1	0.9	1.0	12.0	0.7	0.7	0.49
YEL071W	1.1	1.6	2.6	0.4	1.3	1.9	2.0	1.2	3.6	2.8	2.1	0.9	1.6	1.2	1.6	1.2	1.1	1.2	1.13

Gene																			
YGR112W	1.0	2.9	1.1	1.3	0.9	1.1	1.3	1.3	2.6	1.3	1.3	0.7	1.1	1.1	1.2	2.8	0.9	1.2	0.31
YLR164W	1.0	2.4	0.3	1.0	1.2	1.2	1.1	1.2	5.3	2.0	3.2	0.7	1.0	1.5	0.7	11.0	1.5	1.2	0.31
YNR032W	1.0	1.5	1.0	2.1	1.5	1.0	1.1	1.0	6.2	2.4	1.4	0.6	1.3	1.4	0.9	1.0	1.2	1.3	0.71
YPL031C	0.9	2.0	1.4	0.8	1.5	1.8	1.6	1.0	5.7	1.4	1.4	0.8	1.6	0.9	0.7	2.0	1.4	1.2	0.49
YPR048W	1.3	2.0	0.9	1.1	0.9	0.6	0.9	1.5	4.0	2.1	1.0	0.8	0.6	1.2	0.6	0.8	0.7	0.8	0.75
YBL058W	0.9	1.5	0.5	1.1	1.6	0.9	1.5	1.2	2.6	2.1	1.3	0.8	1.6	1.3	1.8	1.8	1.0	1.4	1.42
YBR001C	0.9	1.4	1.1	1.4	0.9	1.1	0.9	1.3	2.3	2.1	1.0	1.0	2.0	1.2	1.8	1.4	1.0	1.6	0.61
YCR105W	2.2	1.2	1.2	3.0	0.9	1.0	1.0	1.4	2.0	3.9	2.3	0.9	1.9	1.9	3.1	1.3	1.3	1.1	0.36
YIR031C	0.9	1.6	0.6	0.6	1.6	1.7	1.4	1.0	2.6	1.0	1.2	0.8	1.0	1.2	0.8	0.7	0.9	0.8	0.44
YGL191W	2.3	1.6	1.4	1.8	0.9	1.6	1.0	1.6	1.1	1.3	1.6	0.9	1.1	1.6	0.7	1.8	1.2	1.7	2.35
YLR038C	2.6	1.1	0.6	2.1	1.8	1.2	1.0	1.4	0.4	0.9	1.4	0.6	0.5	1.6	0.7	2.1	1.2	2.1	1.52
YGR087C	1.0	15.0	1.7	0.6	1.0	1.1	1.0	0.8	0.2	0.9	0.8	1.2	1.2	0.7	3.5	0.6	1.0	0.6	1.88
YGL256W	0.9	5.3	1.1	1.3	0.7	0.7	0.5	1.0	0.4	1.2	1.0	0.9	0.8	0.9	1.0	0.7	0.7	0.8	0.90
YDL181W	1.4	1.8	1.9	1.8	1.7	1.2	1.1	0.6	0.7	0.8	0.8	0.9	0.9	1.1	0.4	1.1	1.1	1.4	0.85
YPL262W	1.1	1.7	3.8	1.2	0.6	1.6	1.3	1.0	1.4	5.8	1.4	1.1	1.5	1.2	0.6	1.4	1.3	1.2	0.79
YLR377C	1.1	2.6	1.8	1.2	1.0	0.7	0.9	0.7	1.8	1.6	0.6	0.6	1.2	2.9	0.8	2.7	0.9	1.4	0.14
YBR221C	0.8	0.7	3.2	1.5	1.3	1.7	1.5	0.8	1.0	1.3	1.2	1.3	1.7	0.8	1.1	1.5	0.9	1.0	3.62
YKL141W	1.6	1.1	4.7	1.7	1.5	1.2	0.5	0.8	0.8	0.5	1.2	0.8	0.8	1.4	0.6	2.8	0.9	1.8	2.84
YLR134W	0.9	0.6	2.3	0.8	1.3	2.5	1.1	0.8	0.1	0.7	1.1	1.2	1.5	0.6	1.7	0.5	0.6	0.8	3.47
YLR258W	1.7	1.0	4.2	3.5	0.9	1.8	1.8	0.9	0.8	1.3	1.2	0.9	1.4	1.2	0.6	1.7	1.0	2.0	1.36
YOR178C	1.4	1.3	4.8	2.3	1.0	2.7	0.9	0.9	0.2	1.7	4.1	1.7	1.0	1.0	1.1	1.7	1.0	1.5	0.56
YBL099W	0.8	0.9	3.1	1.4	1.0	0.9	0.9	0.8	0.9	0.7	2.1	1.0	0.9	0.6	1.0	0.9	0.7	1.2	3.49
YDR050C	1.9	1.3	2.3	1.8	0.9	1.7	1.5	1.3	0.4	1.3	2.0	1.4	2.0	1.2	1.9	1.3	1.1	2.3	6.26
YDR178W	2.0	2.0	3.4	2.2	0.9	2.1	0.6	0.9	0.9	0.8	2.0	1.3	1.5	1.5	0.7	3.0	1.2	2.3	2.27
YDR298C	1.3	1.2	2.6	1.3	1.3	1.2	1.0	1.2	1.0	1.6	1.2	1.1	1.2	1.5	0.8	2.0	1.1	1.6	2.69
YEL024W	1.5	0.9	3.8	1.1	1.3	1.1	0.7	1.0	0.7	0.6	0.9	0.8	0.6	1.1	0.6	2.1	1.1	1.5	1.59
YJL121C	1.0	0.5	1.9	0.8	1.0	1.1	0.7	1.0	0.1	0.4	1.1	0.6	0.7	0.9	1.0	0.6	1.1	1.0	1.00
YJR121W	1.2	1.1	3.3	1.0	0.8	1.5	1.0	0.7	0.8	1.3	0.9	0.8	1.0	0.7	0.9	1.2	1.1	1.4	3.99
YKL060C	1.7	0.8	2.5	1.0	1.6	1.3	1.2	1.1	0.3	0.8	2.1	1.3	1.2	0.8	1.6	1.5	1.1	1.7	6.01
YKL148C	0.9	0.8	3.7	0.7	0.8	0.5	0.6	0.8	1.7	1.7	1.5	0.8	0.8	0.8	0.6	1.1	0.8	1.0	0.54
YLL041C	1.5	0.5	4.6	1.0	1.6	1.2	0.3	0.8	0.7	0.8	1.3	0.8	1.0	1.2	0.4	3.1	1.1	1.7	1.75

Gene																			
YLR044C	0.8	0.6	2.2	0.9	1.7	1.5	1.3	0.7	0.0	1.2	1.1	1.4	1.7	0.5	2.2	0.6	0.9	0.9	5.16
YLR284C	0.9	1.0	3.8	1.9	1.6	0.9	0.8	1.2	0.9	0.9	1.5	0.6	0.8	1.3	1.0	4.5	2.9	8.1	0.84
YLR304C	0.7	0.6	5.0	0.7	0.6	1.9	0.6	0.6	0.1	2.2	1.6	1.0	0.5	0.7	1.6	1.8	0.5	0.7	2.39
YLR354C	1.2	2.5	2.3	1.5	1.6	1.5	1.1	1.4	0.4	0.9	1.7	1.2	1.0	0.9	2.4	1.3	1.0	1.5	4.53
YMR205C	0.5	0.7	2.3	0.8	1.2	1.2	0.9	0.7	0.3	0.8	1.0	1.1	1.3	0.5	0.9	0.9	0.6	0.5	4.75
YMR261C	0.8	1.6	3.6	0.8	0.9	0.6	1.3	0.7	1.6	1.3	0.8	0.9	1.6	0.6	0.8	1.6	0.7	1.1	0.78
YMR323W	0.8	1.1	2.9	1.1	0.7	0.4	1.1	0.8	0.5	1.3	2.5	1.2	1.8	1.2	37.3	0.6	1.1	0.6	1.04
YOL086C	1.1	0.5	2.2	1.1	1.9	1.7	1.9	0.8	0.1	1.2	2.6	1.3	1.7	0.6	1.6	1.4	1.1	1.3	4.19
YOR142W	1.3	1.2	3.4	1.0	1.4	1.6	1.0	0.8	1.1	1.5	1.5	0.8	1.4	0.8	1.1	0.8	0.9	1.0	1.31
YPL061W	0.4	1.4	5.0	1.3	1.6	1.7	0.5	0.8	1.3	0.7	1.1	1.0	1.1	0.6	1.7	1.0	1.6	2.6	3.23
YDL107W	1.3	1.3	1.0	2.2	1.0	1.3	1.8	1.8	1.2	1.8	1.0	1.0	1.2	1.5	1.0	2.0	1.1	1.5	0.51
YDR529C	1.8	1.0	0.9	3.2	1.0	3.2	0.5	1.3	0.5	0.6	0.8	0.6	0.7	1.5	0.5	1.8	1.0	2.3	3.11
YGL018C	1.5	1.0	1.8	3.0	1.1	3.0	1.1	0.8	0.5	1.4	1.1	1.0	1.3	1.2	1.1	1.5	0.8	1.0	0.36
YBR185C	1.5	1.0	1.3	2.0	0.8	2.0	1.2	1.1	0.9	1.6	1.2	0.7	1.0	1.7	1.0	1.7	0.8	1.3	0.89
YEL039C	1.1	0.7	1.3	5.1	0.9	5.1	0.6	1.1	1.2	1.2	1.7	0.6	0.5	1.4	0.4	3.5	0.7	1.1	1.59
YGR174C	1.1	1.6	0.6	2.4	1.0	2.4	1.0	1.6	1.8	0.7	1.3	0.9	1.5	1.6	0.7	3.2	1.3	2.3	1.05
YKL016C	1.5	1.3	0.7	1.7	1.5	0.8	1.5	1.6	1.3	1.8	1.3	1.0	1.3	1.6	0.7	1.8	1.0	1.7	2.08
YLR395C	1.8	1.3	2.2	1.9	0.7	0.4		1.0	1.3	0.9	1.5	0.6	0.5	1.7	0.4	1.2	1.2	2.3	1.76
YML120C	1.1	1.2	1.9	1.9	0.6	0.6	0.8	0.9	1.3	1.5	1.3	0.9	1.2	0.8	0.5	1.5	1.0	1.6	0.74
YMR073C	1.1	1.1	1.2	1.5	0.8	0.9	1.0	1.1	1.2	1.2	0.9	0.8	1.2	2.0	0.9	1.5	0.8	1.2	0.69
YOR388C	1.0	1.6	1.3	4.7	1.3	1.4	1.0	0.7	0.1	1.4	1.3	0.7	1.1	1.3	4.0	0.8	1.0	0.9	0.21
YPL275W	0.6	1.5	1.3	5.1	1.2	1.0	1.1	1.0	0.2	1.2	0.9	0.7	1.0	1.3	1.4	0.9	1.0	1.0	0.28
YPL276W	1.2	1.5	1.6	3.0	1.5	1.1	1.2	0.9	-0.2	1.8	-0.4	0.6	0.9	1.0	1.0	0.6	1.1	0.8	0.22
YGL205W	1.0	0.9	0.7	0.8	0.7	1.6	0.8	1.2	0.5	0.6	0.4	1.1	1.0	1.0	2.0	4.1	3.9	9.1	0.24
YJL166W	2.1	1.5	1.6	1.3	2.0	0.7	0.8	1.4	1.3	1.2	1.4	0.7	0.8	1.9	0.5	2.3	1.7	4.0	2.31
YNL202W	0.7	1.3	1.2	1.7	0.9	2.0	0.9	1.2	1.3	1.1	1.2	0.9	1.8	1.0	1.4	4.2	2.4	3.3	0.47
YDR377W	1.3	1.1	1.3	1.4	1.9	1.3	1.1	1.3	1.0	0.9	1.4	0.9	0.7	1.4	0.6	1.8	1.2	2.5	3.00
YGL187C	1.5	0.8	1.6	1.8	1.3	1.1	0.6	0.7	0.6	0.6	0.7	0.8	0.7	0.9	0.3	1.4	0.9	2.4	2.73
YJL216C	1.1	4.7	2.2	0.9	0.8		1.5	1.9	1.5	1.3	1.1	1.0	1.1	1.1	1.2	1.5	1.2	2.0	0.25
YKR009C	1.0	1.2	1.5	0.9	1.0	1.8	1.0	0.9	2.4	2.1	1.2	1.0	1.8	1.0	1.0	4.6	1.9	2.5	0.27
YCR046C	1.0	1.2	1.2	1.6	1.0	0.8	1.2	0.9	1.9	1.4	1.5	1.1	1.5	1.3	1.4	2.8	1.3	1.0	0.63

YML129C	1.1	0.9	0.9	1.2	1.7	1.7	1.8	1.2	1.4	2.2	1.2	0.8	1.0	1.4	1.1	2.9	1.3	1.3	1.04
YPR184W	1.2	1.4	5.7	2.2	0.9	1.5	1.3	0.7	1.9	3.2	3.6	1.4	2.5	1.3	1.5	3.1	1.0	1.7	0.37
YDL067C	1.8	1.0	1.6	1.3	2.0	0.9	0.8	1.1	0.9	0.9	1.4	1.0	0.6	1.4	0.7	1.8	1.2	1.7	1.85
YDL078C	0.7	1.1	1.2	0.8	1.3	1.1	1.7	1.0	1.1	1.0	1.7	0.8	1.0	0.8	0.5	2.2	1.1	2.0	1.65
YDR079W	1.3	1.1	0.8	1.1	1.2	1.7	1.3	2.6	0.9	0.8	1.3	1.1	1.3	1.5	0.6	2.6	1.1	1.3	1.06
YGR062C	0.9	1.0	0.7	1.4	0.7	0.9	1.3	0.8	1.0	1.4	1.6	1.0	1.5	1.2	0.5	1.8	0.9	1.1	0.54
YKR058W	1.3	0.9	1.4	1.9	0.8	1.4	1.4	1.5	1.3	1.2	1.5	0.9	0.7	1.3	0.5	2.6	0.8	1.6	0.73
YLR295C	1.5	1.1	1.1	1.7	2.2	1.1	1.1	1.2	1.4	1.2	1.3	0.5	0.8	1.2	0.5	2.4	0.9	1.5	1.07
YMR267W	0.8	1.8	0.7	0.9	1.0	1.4	1.2	1.5	0.4	0.8	1.0	0.8	0.7	1.0	0.9	2.6	0.9	1.3	0.94

表5　トランスポート促進タンパク質遺伝子

化学物質存在下の発現mRNA/不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YBR008C	3.0	2.4	4.9	0.7	0.9	1.0	0.9	2.8	54.6	21.1	9.4	0.8	2.0	4.1	0.8	3.1	2.0	1.2	0.37
YBR296C	7.0	4.3	2.2	2.5	1.4	1.4	0.2	1.1	0.4	1.8	1.5	1.6	2.0	2.3	1.7	0.3	3.8	4.0	0.54
YDR406W	0.8	1.2	3.1	1.1	1.0	5.9	1.8	0.6	1.1	1.7	1.4	3.9	7.7	0.5	0.8	5.5	2.7	5.6	0.53
YOR153W	1.6	0.9	5.1	1.1	1.0	7.4	2.6	0.5	3.2	1.2	1.0	4.0	11.8	0.3	3.6	1.6	2.5	3.1	1.91
YGR281W	1.2	1.0	1.3	2.2	0.6	1.9	0.9	0.7	2.7	1.4	0.7	2.4	12.9	0.9	2.1	1.1	2.8	3.1	1.04
YHL047C	0.6	4.4	1.0	1.0	1.2	8.4	16.8	1.5	1.2	11.9	1.0	2.6	3.8	0.5	1.1	2.3	1.2	1.2	0.74
YBR294W	6.3	14.4	0.9	2.6	1.4	1.2	1.1	1.0	5.2	5.2	1.2	1.0	3.1	1.3	1.0	0.9	1.0	0.9	0.18
YGL006W	2.5	1.3	1.3	2.6	1.0	1.0	1.3	0.9	3.0	1.2	0.8	0.9	4.5	0.9	1.1	1.7	2.4	4.1	1.37
YGR197C	1.1	2.4	2.5	1.0	0.7	0.5	1.3	0.8	16.7	3.2	1.1	1.2	2.4	1.5	1.0	1.5	1.7	1.9	0.37
YJL034W	0.7	1.7	3.0	0.8	1.2	1.1	1.3	1.5	2.8	1.1	1.3	1.6	6.1	0.6	7.9	0.6	1.1	1.0	4.58
YNL055C	1.1	1.8	5.5	2.0	0.9	2.6	1.2	0.7	1.1	1.0	1.9	1.7	2.4	0.9	1.1	2.6	1.2	1.7	4.10
YBR052C	1.6	1.6	1.5	2.6	1.4	2.1	3.0	1.3	2.3	2.5	1.7	1.3	2.1	1.5	0.7	3.1	1.8	3.1	2.77
YBR207W	0.8	1.7	0.8	2.0	1.7	1.6	4.3	0.9	1.7	2.2	1.1	0.9	2.2	0.9	1.4	1.4	1.2	1.4	1.39
YBR293W	1.9	3.1	1.0	1.8	0.8	0.9	0.9	0.9	5.5	2.4	1.1	1.0	3.0	1.4	3.1	1.6	1.0	0.9	0.94
YDL198C	1.4	1.0	2.1	1.4	0.7	0.8	1.0	1.1	1.9	2.7	2.5	1.2	2.0	1.7	1.2	1.4	1.5	1.1	1.19
YDL245C	1.0	2.4	1.6	2.2	1.3	1.1	1.2	1.2	0.4	2.8	1.5	1.0	2.0	1.2	1.8	1.5	1.0	1.1	0.28
YDR497C	0.7	0.5	0.6	1.3	0.7	0.6	0.5	0.6	0.4	0.8	0.7	0.9	2.7	0.6	10.1		1.6	1.8	1.45
YER053C	1.6	1.8	1.9	1.7	0.6	2.8	2.8	1.3	1.3	3.9	2.4	1.7	4.1	1.3	1.1	2.8	1.2	2.3	1.83
YFL041W	0.7	1.6	1.4	1.2	1.2	2.0	3.4	1.0	0.8	5.1	0.9	1.1	1.8	1.0	0.9	1.4	1.1	0.9	0.89
YGR055W	2.5	5.7	12.0	0.7	1.3	1.1	0.6	1.1	5.0	2.4	1.5	0.9	1.9	1.2	2.1	0.6	0.7	0.7	1.42
YJL219W	1.2	2.5	3.1	1.6	1.2	1.5	0.9	1.5	4.0	2.3	2.3	1.1	4.0	1.1	2.6	1.4	1.6	1.2	0.91
YJR106W	0.9	3.8	1.5	1.1	0.9	1.2	1.0	0.9	2.0	1.6	1.6	0.9	3.5	0.9	1.2	1.9	1.2	1.3	0.29
YKL146W	0.8	1.3	1.3	0.9	1.0	1.3	0.9	0.8	4.6	2.8	0.9	1.1	2.7	1.0	1.5	1.3	1.0	0.9	0.42
YLL028W	0.6	0.9	4.6	0.5	0.9	1.7	1.0	0.7	1.2	2.3	0.7	1.3	4.1	0.7	3.1	0.6	1.2	1.2	1.02
YLR348C	1.1	4.5	1.2	1.2	0.9	1.9	0.9	0.9	2.1	1.3	1.3	0.9	1.9	1.0	2.4	1.1	1.1	1.0	0.64
YOL119C	2.6	4.8	1.5	2.3	1.5	0.9	2.2	2.0	5.0	7.4	3.4	0.9	1.6	2.4	4.7	2.8	1.4	1.0	0.37
YOL163W	1.5	3.2	2.1	3.3	0.9	0.5	0.9	1.1	7.5	6.2	1.6	1.0	2.4	1.2	1.0	1.4	0.8	0.8	0.30
YOR035C	1.2	1.2	0.3	1.2	1.0	1.9	1.3	1.0	1.3	1.7	1.0	1.1	2.5	0.9	3.8	1.8	1.6	2.1	0.52

Gene																			
YOR130C	0.8	1.7	1.4	1.0	1.8	1.6	1.3	0.8	2.0	1.7	0.6	0.9	2.1	1.3	1.0	0.8	1.5	1.1	0.51
YOR273C	0.7	1.0	1.7	1.0	1.1	0.4	0.4	0.6	0.6	0.5	1.5	0.8	2.6	0.5	0.8	0.6	3.2	3.1	1.20
YOR332W	1.1	1.0	1.0	1.0	0.9	1.8	0.9	1.5	1.8	1.1	1.5	1.0	2.2	1.1	1.2	1.2	1.3	1.7	3.58
YCR098C	1.6	3.0	1.7	2.0	1.4	1.6	1.2	1.0	1.4	2.4	1.3	1.3	1.4	1.1	11.0	0.8	1.7	1.6	0.22
YGR138C	1.1	1.6	1.0	1.2	0.8	0.8	0.7	1.0	0.5	1.0	0.7	0.6	0.6	0.9	4.5	0.7	0.7	0.7	1.24
YBR295W	1.4	1.5	3.3	1.1	0.8		1.6	0.9	1.2	3.3	1.1	0.9	1.8	1.1	4.8	1.4	1.3	1.2	0.27
YGL255W	0.7	0.9	0.9	0.8	1.4	1.1	1.0	0.7	0.3	5.0	0.5	0.7	0.2	1.0	2.6	0.5	0.6	0.5	1.36
YHL035C	0.7	1.3	0.9	1.9	0.9	4.1	1.7	1.1	0.6	4.6	0.9	1.4	1.1	0.8	3.1	2.4	1.1	1.2	0.77
YIL022W	0.8	0.7	1.1	1.6	0.8	1.2	0.7	0.8	1.1	1.3	1.0	0.9	1.2	0.6	2.9	1.1	0.8	0.7	0.52
YLR378C	0.7	0.9	2.6	0.5	1.0	1.2	0.7	0.5	1.1	0.7	1.0	1.2	1.6	0.4	5.9	0.4	0.9	0.7	1.23
YCL038C	1.6	1.6	1.4	1.6	1.2	3.2	1.5	1.2	1.1	0.9	2.0	1.3	1.9	1.3	2.0	1.8	1.4	1.5	1.04
YFL054C	1.6	1.1	1.4	2.2	1.3	2.4	1.1	1.5	2.0	2.3	1.7	1.2	2.3	0.9	1.4	1.3	1.7	1.4	1.06
YHL040C	1.6	4.9	1.5	0.4	1.1	7.3	4.0	1.5	1.1	11.3	1.7	2.0	2.0	1.1	3.4	1.0	1.4	1.0	0.69
YKR039W	1.4	3.5	1.3	1.7	1.0	2.8	1.0	1.0	1.9	2.0	1.9	1.5	1.3	1.2	1.7	1.9	0.9	1.1	0.40
YPL271W	1.2	3.2	4.1	1.2	1.4	3.3	1.2	0.9	0.6	1.2	1.7	0.8	1.2	1.3	0.8	1.4	1.2	1.3	1.34
YBR068C	1.1	1.0	1.9	2.5	1.4	1.9		1.0	0.8	2.5	0.8	0.8	2.2	1.8	1.6	5.5	1.1	1.3	1.99
YCR037C	0.7	1.0	0.8	0.8	1.3	1.8	1.0	0.7	0.6	0.6	0.8	0.7	1.3	0.8	1.0	1.1	1.4	0.9	0.74
YDL128W	0.8	1.1	2.1	1.0	1.0	2.3	0.9	0.8	0.5	0.7	1.2	0.9	1.6	0.7	1.1	1.0	0.9	1.0	2.80
YDR270W	0.7	1.5	1.4	1.3	1.0	2.2	1.7	1.2	2.9	3.6	1.0	1.0	1.8	1.0	1.4	1.1	0.9	0.7	0.38
YEL065W	0.3	3.8	1.2	0.4	1.4	2.3	4.3	0.9	0.1	4.9	0.6	1.7	0.8	0.4	2.2	2.6	0.7	0.6	2.10
YGL008C	0.6	0.7	3.1	0.9	0.8	1.9	1.4	0.7	0.0	0.4	0.7	2.4	1.9	1.2	1.0	2.1	1.1	1.0	4.08
YGL104C	0.8	2.0	2.1	1.8	1.0	2.1	1.2	0.8	4.6	2.1	1.8	1.1	2.0	1.0	0.9	1.7	1.3	1.3	0.58
YGL167C	0.9	0.7	1.6	1.3	1.2	2.0	1.2	0.8	1.3	1.1	0.8	1.1	1.5	0.8	1.3	1.3	1.4	1.4	1.41
YGR065C	0.8	1.5	2.6	1.1	1.2	2.4	2.4	1.0	1.2	2.6	1.1	0.5	0.8	1.3	1.2	1.1	0.7	0.7	0.68
YHR092C	2.3	1.0	7.5	2.5	1.4	1.7	0.5	1.5	0.2	0.9	1.5	1.0	0.5	1.6	0.2	1.2	0.9	1.3	6.09
YIL088C	0.9	2.1	2.1	1.3	1.6	2.2	1.7	0.8	1.0	1.7	1.8	0.9	1.5	1.2	1.2	1.8	1.2	1.4	1.89
YNL259C	1.6	3.5	1.1	1.2	1.1	3.9	3.8	1.5	1.6	2.1	1.6	0.7	1.1	1.4	0.7	1.7	2.6	2.4	1.22
YOR270C	0.7	0.5	2.0	0.8	0.8	1.8	1.0	0.6	0.4	0.9	1.5	0.7	1.3	0.7	1.1	0.8	0.9	0.9	3.49
YPL265W	0.7	0.4	2.3	1.1	1.0	2.3	8.9	2.3	0.2	1.2	1.8	0.9	1.1	1.1	1.2	2.0	0.5	0.4	1.42
YPR124W	0.2	0.4	0.3	1.4	2.0	2.0	2.9	2.7	0.2	1.5	2.0	0.8	0.6	0.4	1.1	2.4	1.0	1.3	2.57
YER119C	0.7	2.1	1.8	0.7	0.8	1.3	0.8	0.6	5.8	1.2	2.2	0.7	1.6	1.0	2.3	0.8	1.0	0.9	0.32

Gene																			
YFL055W	0.23	1.0	1.4	1.4	0.7	1.5	1.3	0.9	2.7	6.5	23.9	1.3	1.4	1.1	1.5	2.5	1.3	6.7	2.0
YLL055W	0.47	1.3	1.1	2.8	0.7	1.3	1.5	0.7	3.6	14.0	19.1	1.4	1.7	1.4	1.0	1.7	4.8	19.0	2.6
YHL036W	0.60	1.0	1.0	1.1	0.9	1.2	1.5	1.2	2.3	4.4	9.0	1.2	1.0	1.3	1.3	2.0	3.4	4.8	2.2
YHR048W	0.26	0.9	0.7	1.4	0.9	1.7	1.1	0.9	2.0	2.7	4.5	1.9	0.8	0.8	1.0	1.7	1.4	1.4	2.5
YKL221W	0.27	0.9	0.8	1.3	1.1	1.4	1.6	0.7	1.9	2.7	7.3	1.2	1.3	0.9	1.0	1.0	2.0	0.7	1.3
YLR092W	0.24	1.1	1.0	1.2	0.9	1.4	1.8	1.0	3.1	5.8	12.7	1.5	1.3	1.0	1.3	0.6	1.4	5.6	5.0
YML116W	0.94	1.0	1.0	1.0	1.9	2.0	0.8	0.5	4.3	3.1	1.4	2.2	1.4	0.9	1.2	1.4	1.5	1.3	4.1
YBR291C	1.19	1.3	0.9	1.5	0.5	1.7	1.0	0.9	1.1	1.0	0.9	2.2	0.9	1.1	0.9	1.5	1.0	0.9	2.0
YCL069W	0.25	1.0	1.0	0.9	1.4	1.3	0.8	0.9	1.0	6.9	1.2	1.3	1.4		0.9	0.8	0.9	4.5	0.9
YJR095W	0.23	0.9	1.3	0.8	0.8	1.3	0.8	0.7	0.6	6.3	0.5	0.9	2.0	1.5	1.2	6.7	1.9	20.5	1.2
YKL188C	0.27	1.5	1.1	2.7	1.4	2.1	1.2	1.2	1.1	2.8	2.5	0.7	1.1	0.8	1.0	2.4	1.9	0.7	1.3
YKL217W	0.29	3.3	1.7	3.0	2.2	1.2	1.2	0.8	1.6	4.1	0.9	1.1	1.6	1.2	1.1	2.1	1.0	2.4	1.8
YKR105C	0.26	1.0	0.8	0.7	1.5	1.2	2.5	0.8	0.0	5.2	1.0	1.3	1.0	1.2	1.0	1.5	0.9	0.9	0.8
YOL158C	1.30	1.7	1.4	1.2	0.9	1.0	1.4	0.9	0.7	6.1	1.7	0.7	1.6	1.0	1.2	0.9	2.4	4.0	0.7
YPL224C	0.64	1.9	1.3	2.5	1.0	1.4	1.3	1.1	0.8	4.2	3.2	1.3	2.2	1.3	0.6	2.5	1.3	2.2	1.0
YPR201W	0.29	0.9	0.8	0.9	0.8	1.8	1.1	0.7	2.2	5.6	8.3	0.9	0.8	1.9	1.2	1.0	1.1	0.9	33.2
YAL067C	0.33	1.0	1.0	1.6	2.4	1.3	1.1	1.0	1.2	2.9	7.6	1.1	0.8	1.2	0.7	1.4	1.5	12.1	2.7
YDL149W	0.33	1.0	0.8	1.4	1.8	1.2	1.5	0.7	1.2	2.0	3.2	1.2	0.7	1.0	1.5	1.6	1.2	2.0	0.8
YJL094C	0.84	2.0	2.1	1.8	1.0	1.0	2.6	1.2	1.1	2.9	5.4	0.8	1.7	1.3	1.4	2.0	1.3	1.7	1.0
YLL061W	0.33	0.7	0.6	1.0	1.4	1.3	0.9	0.7	1.7	5.5	3.7	1.4	0.9	0.8	0.8	0.4	9.2	2.8	3.6
YPL274W	0.41	0.6	0.7	1.1	1.5	0.9	0.6	0.5	2.0	3.6	4.1	0.9	0.7	1.1	0.6	0.8	3.8	4.2	0.8
YBR241C	1.25	1.2	1.0	0.7	1.6	0.9	1.4	1.4	1.4	2.2	29.8	0.7	1.4	1.5	0.9	0.9	2.6	9.3	0.9
YDL206W	0.35	1.1	1.0	3.1	1.1	1.0	1.3	1.0	0.6	1.5	1.6	1.1	2.0	5.7	1.1	1.4	1.8	1.7	0.9
YDR040C	1.25	1.6	1.4	1.4	0.8	0.9	1.8	0.9	0.8	1.2	2.0	0.8	0.7	1.7	1.0	0.8	3.7	1.4	0.7
YFR045W	0.84	0.8	0.9	0.6	1.1	1.0	1.1	1.0	1.4	1.0	2.2	1.0	0.6	1.0	1.0	1.1	1.1	1.6	1.1
YIL170W	0.48	1.5	1.6	1.8	2.3	1.1	1.9	0.7	1.7	3.2	5.7	1.2	0.5	8.8	0.9	2.2	2.5	1.0	1.1
YKL192C	1.57	0.8	1.0	2.1	1.2	1.5	1.7	1.2	1.1	1.6	3.5	0.9	1.1	1.8	1.1	1.1	3.7	1.0	1.1
YKL209C	0.30	1.0	1.1	1.1	1.0	1.1	1.4	0.9	0.8	1.6	2.4	1.4	0.9	3.3	1.2	0.8	1.3	1.0	1.0
YKR106W	0.16	0.8	0.9	2.8		1.7	1.4	0.8	1.8	7.4	10.5	1.3	0.9	1.6	1.2	1.4	2.1	0.8	1.3
YMR056C	0.72	1.1	1.0	2.4	0.7	1.1	1.4	0.9	1.6	1.1	1.8	1.2	1.4	0.9	1.1	1.0	1.7	1.3	1.1
YPL147W	0.33	3.6	1.5	2.5	2.4	1.0	0.9	0.9	1.3	2.4	2.4	0.9	1.0	1.1	1.2	1.2	2.3	0.8	1.0

YIL166C	1.9	12.5	2.1	1.2	1.0	1.9		1.3	2.5	2.9	1.8	0.9	1.5	1.1	1.3	0.7	1.2	0.9	0.26
YMR058W	0.3	5.1	2.1	0.3	0.8	2.6	1.8	0.8	0.2	1.4	0.8	0.8	0.4	0.3	0.5	0.4	0.6	0.5	1.66
YNL142W	0.7	2.4	2.5	0.8	1.3	0.9	1.1	0.8	0.9	0.6	0.9	1.2	0.9	0.8	0.3	1.0	1.0	0.9	0.44
YDL210W	1.2	2.2	2.7	1.1	0.9	1.3	0.8	1.1	1.2	1.4	0.6	0.8	1.2	1.1	1.9	0.9	1.1	0.9	0.20
YCL025C	1.1	4.6	2.5	1.7	0.9	0.9	0.7	0.7	0.3	0.3	1.0	1.1	0.5	0.7	0.8	0.6	0.6	0.6	1.98
YJL212C	0.8	3.2	3.1	0.5	1.2	1.1	0.7	0.7	1.1	1.3	0.9	0.4	1.0	0.8	0.3	0.5	0.6	0.5	0.59
YBR132C	0.9	1.9	2.4	1.8	0.8	1.2	1.1	0.8	0.8	1.1	1.9	1.0	1.4	1.1	1.5	1.3	1.1	1.3	0.43
YBL030C	1.0	0.9	4.5	0.9	0.7	1.1	0.9	0.8	0.4	0.9	1.1	0.9	0.5	0.8	1.8	1.0	1.0	1.1	3.12
YCR024C-A	0.8	0.9	3.2		0.9	1.2	0.8	0.8	0.2	0.7	1.5	1.0	0.5		1.3	1.5	0.9	1.4	4.02
YDR342C	2.8	1.1	12.2	5.7	1.6	1.1	0.8	1.2	0.2	2.2	2.9	1.0	0.6	0.8	0.5	2.4	1.0	2.2	5.23
YDR343C	1.2	1.0	20.6	4.6	1.3	1.3	0.7	1.2	0.3	2.1	2.3	1.0	0.8	0.9	0.5	2.8	1.1	2.3	5.81
YEL027W	1.2	0.6	3.4	1.1	1.0	1.1	0.8	0.9	0.9	1.1	0.9	0.9	0.7	1.4	1.5	1.6	1.0	1.4	4.75
YHR094C	0.7	1.2	5.3	1.6	1.1	1.6	0.8	1.2	0.3	1.2	0.6	0.9	0.7	0.6	2.7	0.9	1.4	1.4	4.82
YHR175W	0.8	2.0	2.4	1.5	0.9	1.0	1.6	0.9	0.6	2.0	1.1	0.9	1.2	0.7	1.3	2.3	1.3	1.2	1.01
YIL056W	1.1	0.9	6.2	1.4	1.2	1.0	0.6	0.7	1.2	1.6	0.7	1.4	1.5	1.0	0.5	0.9	1.5	1.2	0.71
YMR203W	0.8	0.7	3.0	1.4	0.6	1.1	0.8	0.7	0.7	1.2	2.3	0.7	1.1	0.7	1.2	0.9	0.8	0.7	1.62
YBL099W	0.8	0.9	3.1	1.4	1.0	0.9	0.9	0.8	0.9	0.7	2.1	1.0	0.9	0.6	1.0	0.9	0.7	1.2	3.49
YBR127C	0.8	0.7	2.2	1.1	1.4	1.1	0.9	1.1	0.6	1.3	1.1	0.9	0.9	0.6	1.3	1.4	0.8	1.0	4.59
YDR038C	0.6	1.3	3.1	0.9	0.9	1.8	0.7	0.9	1.4	0.9	0.9	0.7	2.0	0.8	0.8	1.4	1.3	1.5	1.32
YDR039C	0.6	1.6	3.2	0.9	1.3	1.1	0.8	0.6	1.8	1.0	0.9	0.8	1.8	0.9	1.2	1.4	1.1	1.6	1.39
YDR298C	1.3	1.2	2.6	1.3	1.3	1.2	1.0	1.2	1.0	1.6	1.2	1.1	1.2	1.5	0.8	2.0	1.1	1.6	2.69
YDR345C	0.8	0.9	5.6	2.6	1.3	1.2	1.1	1.2	0.2	1.1	1.5	1.4	1.2	0.8	0.8	1.0	1.3	1.8	5.65
YEL063C	0.7	0.8	2.4	1.3	1.2	1.3	0.7	0.6	0.8	1.7	0.8	1.1	1.1	0.8	1.3	1.0	0.7	0.7	1.12
YFL011W	1.2	0.7	3.7	3.3	1.3	1.0	0.8	0.8	0.3	1.6	2.1	1.4	0.8	0.8	1.7	1.2	0.8	1.0	1.25
YGR082W	1.0	0.9	2.2	1.0	0.9	1.1	0.9	0.8	0.6	0.9	1.3	1.1	0.5	0.9	1.2	0.9	0.9	0.8	1.47
YGR191W	0.8	0.7	1.6	1.5	0.8	1.1	0.7	0.7	0.1	0.7	1.6	0.9	1.0	0.7	1.5	0.7	0.8	0.8	1.58
YGR260W	0.6	0.7	3.4	0.8	0.8	1.1	0.9	0.5	0.3	0.4	1.3	0.8	0.5	0.7	1.8	1.0	0.9	0.9	1.71
YHR026W	0.9	1.0	1.9	1.0	1.1	1.3	0.9	1.6	1.1	0.9	1.4	0.7	0.7	1.3	2.4	1.2	0.9	1.1	3.40
YJR077C	1.1	1.1	2.0	1.6	0.9	1.1	0.7	0.8	0.4	0.7	1.6	1.0	0.9	0.7	1.5	0.7	1.0	0.8	1.79
YJR121W	0.9	1.1	3.3	1.0	0.8	1.5	1.0	0.7	0.8	1.3	0.9	0.8	1.0	0.7	0.9	1.2	1.1	1.4	3.99
YLR081W	1.3	0.8	2.8	3.6	1.0	0.9	0.7	0.9	0.1	2.2	2.6	1.0	0.6	1.0	0.7	1.2	0.7	0.9	1.46

YMR011W	4.95	1.6	1.3	1.2	0.6	0.6	0.4	0.8	1.5	0.7	0.0	1.1	0.8	0.6	0.9	5.5	9.4	1.0	1.3
YOL156W	0.53	0.9	0.9	0.9	1.9	0.9	1.7	0.9	1.1	2.1	2.3	1.0	1.0	1.2	1.2	1.1	2.5	0.7	1.1
YPL036W	3.66	0.5	0.4	0.7	1.0	0.6	0.3	0.5	0.8	0.3	0.1	0.5	0.3	0.7	1.3	0.9	2.8	0.8	0.5
YGR096W	0.49	1.0	0.8	0.8	0.9	1.2	1.1	0.8	0.8	0.8	0.8	1.0	0.9	1.7	1.2	4.6	1.1	1.0	1.5
YIL006W	0.28	0.9	0.8	1.7	1.5	1.0	0.8	0.9	1.0	1.1	0.9	0.6	0.8	0.3	0.8	2.9	1.4	1.1	1.0
YKL016C	2.08	1.7	1.0	1.8	0.7	1.6	1.3	1.0	1.3	1.8	1.3	1.6	1.5	0.8	1.5	1.7	0.7	1.3	1.5
YKR067W	0.58	1.0	0.8	2.0	1.3	1.3	1.3	1.0	1.3	2.3	1.6	0.8	2.0	1.8	1.3	2.5	1.5	2.6	0.8
YMR162C	0.32	1.1	0.8	0.8	1.0	1.0	0.9	0.7	1.7	1.0	0.7	0.8	0.8	1.0	0.9	2.0	1.1	1.1	0.8
YOR348C	0.18	0.9	0.9	1.7	1.6	1.2	1.1	0.7	1.1	0.4	0.5	0.8	0.8	0.7	0.9	2.0	1.2	0.7	0.8
YPR192W	0.28	0.9	1.6	2.6	1.7	0.7	1.1	0.5	0.7	1.3	0.7	0.6	0.9	0.9	1.2	2.0	0.9	1.1	1.1
YPR194C	0.27	0.9	1.0	0.8	0.4	1.0	1.0	0.7	0.7	0.6	0.5	1.0	0.7	1.5	1.3	5.0	0.5	1.4	0.9
YDR086C	2.60	1.9	1.4	1.3	2.1	1.5	0.7	0.7	1.1	0.8	0.6	1.9	2.0	0.8	1.0	2.9	1.2	1.0	2.2
YGR224W	0.27	1.3	2.8	1.0	1.1	0.9	0.8	0.6	0.8	0.9	0.9	0.6	0.4	0.8	1.4	1.4	1.2	1.2	1.3
YDR387C	0.86	1.1	1.2	2.7	1.4	0.9	1.3	0.9	2.0	2.0	1.4	0.7	1.3	1.2	0.9	1.2	1.2	0.9	0.9
YFL050C	0.36	1.0	0.8	2.3	1.4	1.0	1.2	0.9	1.2	1.6	0.5	0.9	0.8	0.9	1.0	2.2	1.1	1.0	0.8
YBR298C	0.88	0.8	0.9	2.1	0.2	0.9	0.8	1.1	1.5	1.1	0.3	0.5	1.7	0.4	1.4	2.3	1.6	1.0	0.7
YLR295C	1.07	1.5	0.9	2.4	0.5	1.2	0.8	0.5	1.3	1.2	1.4	1.2	1.1	1.1	2.2	1.7	1.1	1.1	1.1
YNR072W	0.26	1.0	1.3	2.1	1.8	1.0	1.5	1.0	1.4	1.8	0.7	0.9	1.5	0.9	1.0	0.7	0.5	1.5	1.4
YOR316C	0.93	1.0	0.8	2.2	1.5	1.0	1.6	1.1	2.4	2.0	1.6	0.8	1.4	0.9	1.0	1.5	1.5	2.5	1.1
YOR328W	0.19			2.1	3.3	0.8		1.8	1.1					2.9	1.0	1.0		1.0	0.7
YPL134C	0.70	1.3	1.3	3.3	1.1	1.4	1.0	0.8	1.7	0.8	0.6	1.3	1.2	1.2	1.4	1.6	1.6	1.0	1.5

酵母遺伝子

表6　ストレスタンパク質遺伝子

化学物質存在下の発現mRNA／不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YBR072W	18.5	17.4	18.4	10.5	1.2	32.2	6.6	2.1	29.4	43.4	6.3	16.3	38.5	5.8	4.9	23.1	1.8	2.2	0.59
YFL014W	3.4	5.1	5.7	11.0	1.0	9.3	5.5	3.4	13.1	5.8	5.0	4.3	15.2	7.3	6.3	14.2	1.5	8.8	2.14
YLL060C	12.5	4.2	2.3	2.6	0.9	1.4	2.0	5.8	13.0	23.2	14.1	1.1	1.8	10.6	1.5	3.6	1.9	2.3	0.57
YAL005C	0.6	1.6	7.0	0.9	1.2	1.6	1.2	0.9	3.9	1.8	1.0	1.2	5.0	0.4	1.6	0.7	0.8	0.5	5.23
YBL075C	1.3	4.3	3.1	1.6	1.1	0.8	1.3	0.8	60.3	6.7	1.6	1.1	8.0	1.1	2.6	2.2	1.2	0.7	1.17
YBR169C	1.0	2.1	3.9	1.9	0.8	4.9	2.5	0.9	7.0	4.3	2.2	1.7	7.2	1.1	1.6	2.4	1.3	1.6	1.10
YCL035C	2.0	2.3	1.5	1.7	1.5	5.1	2.7	1.4	1.9	2.3	2.1	1.5	2.8	2.5	1.9	5.5	2.6	4.2	1.74
YCR060W		0.7	0.9		0.8	3.3	2.4	1.2	0.7	1.1	1.2	1.7	8.6	1.7		3.3	1.2	1.7	1.04
YDR155C	1.1	1.5	3.2	1.8	0.8	1.5	1.2	1.4	1.3	1.3	3.8	1.4	3.3	1.0	2.5	1.6	1.2	2.5	4.99
YDR258C	1.6	2.3	2.8	1.4	1.3	2.4	3.9	1.9	4.9	13.3	1.7	1.8	5.2	1.5	0.6	1.0	1.3	1.3	0.87
YER103W	0.7	2.1	5.2	2.1	1.1	1.7	1.0	0.9	20.3	9.0	1.8	1.9	9.0	0.9	3.2	1.2	1.4	0.6	2.10
YKL210W	0.5	1.7	2.7	0.7	0.8	1.4	1.0	0.9	3.5	2.9	1.4	1.3	2.9	0.8	1.0	0.9	0.7	1.1	2.29
YLL024C	0.5	1.6	5.3	0.8	0.7	1.0	1.1	0.7	2.8	2.4	1.6	1.0	4.8	0.4	1.3	0.5	0.5	0.6	5.12
YLL026W	1.8	2.9	7.7	1.7	0.9	1.9	2.9	1.4	11.4	6.6	1.7	1.9	8.1	0.8	0.9	1.6	1.7	2.5	2.56
YNL160W	2.1	3.7	10.6	2.0	1.3	5.8	2.4	1.2	3.5	2.7	5.4	1.4	6.0	1.3	0.7	4.0	1.0	1.0	1.77
YNL241C	1.3	2.5	4.3	1.0	0.8	0.9	3.2	0.9	3.4	7.4	3.0	2.0	4.9	1.1	1.4	2.8	1.0	2.5	0.68
YOR027W	0.7	2.4	4.4	0.8	1.0	1.6	1.3	0.9	3.5	4.0	1.3	1.3	5.1	0.8	1.2	0.6	0.9	1.3	1.52
YPL240C	0.7	1.4	2.4	0.9	1.3	1.2	1.4	1.2	3.5	2.6	1.0	0.8	2.9	0.7	1.7	0.7	0.8	1.0	4.83
YDR293C	0.9	0.9	1.2	1.4	0.6	0.9	0.9	0.6	1.2	1.2	1.1	0.9	2.3	0.8	0.8	1.6	1.4	1.3	1.12
YDR436W	0.9	0.9	1.1	1.4	0.7	1.1	1.2	0.9	3.5	1.1	2.0	0.9	2.7	1.2	2.0	1.4	0.9	1.2	0.53
YDR519W	1.3	3.2	1.7	1.6	0.7	1.3	1.9	1.4	0.5	1.2	1.2	1.7	2.5	1.3	0.8	1.5	1.8	2.4	2.01
YEL030W	0.7	0.9	1.9	1.1	0.4	0.6	0.9	0.7	2.3	2.5	1.7	0.9	2.7	0.7	0.8	0.8	0.9	0.6	1.28
YER125W	0.6	1.1	1.5	0.9	1.4	0.7	0.8	0.7	0.6	1.2	1.0	0.7	1.9	0.7	0.8	1.0	1.0	1.0	1.48
YFL016C	0.8	1.0	1.6	0.9	1.3	1.3	1.4	0.7	6.4	2.9	1.2	1.0	2.8	0.8	0.8	0.6	1.2	0.9	1.25
YFR052W	1.1	1.6	1.3	1.5	1.4	3.2	2.2	1.5	3.7	3.0	0.9	1.8	3.8	3.3	1.4	2.7	1.2	1.9	1.62
YHR057C	1.1	1.2	0.7	0.9	1.3	1.3	1.3	1.0	2.6	1.2	1.6	1.1	1.9	1.9	1.2	2.2	1.6	1.3	1.07
YIR037W	1.4	2.2	2.0	2.3	0.6	2.7	1.8	1.3	6.2	3.8	3.0	1.3	2.4	2.3	1.0	4.0	1.7	2.9	1.97
YIR038C	1.3	3.5	4.6	2.0	0.7	2.5	2.0	1.3	4.6	4.5	3.4	1.1	2.5	2.5	1.2	6.0	2.8	2.0	1.11

Gene																			
YJR045C	3.78	0.9	0.7	0.8	2.3	0.5	2.3	1.0	1.4	3.0	3.2	0.8	1.0	1.2	0.5		3.9	1.9	0.5
YLL039C	3.60	2.1	1.6	1.1	3.0	1.4	2.2	1.0	1.1	1.5	3.4	1.1	1.1	1.5	0.9	1.2	1.7	1.0	1.1
YLR259C	2.09	1.0	0.8	1.3	2.1	0.8	2.5	0.7	3.0	2.6	1.8	0.8	1.8	0.9	1.1	1.6	3.1	1.0	0.7
YML070W	1.03	1.3	1.2	2.6	0.9	1.3	3.3	1.3	1.5	3.9	4.5	1.3	3.1	2.2	1.4	1.9	2.5	1.7	0.9
YPL106C	3.34	0.5	0.5	0.5	1.1	0.9	3.1	1.1	1.3	1.8	4.9	1.2	1.1	1.6	1.2	1.1	2.4	1.7	0.6
YPR026W	0.26	1.3	0.9	2.5	3.1	1.5	2.3	1.2	1.6	3.1	0.9	1.0	1.3		0.8	1.3	5.0	1.2	0.9
YDR077W	4.77	1.1	1.4	1.0	6.1	0.3	1.0	0.8	6.8	0.7	0.7	0.8	0.7	1.0	0.8	2.1	3.5	1.0	1.2
YKL163W	2.01	1.0	0.8	3.0	16.8	0.5	1.5	0.9	1.3	1.6	0.7	0.8	0.9	1.1	0.6	1.9	3.4	1.4	1.1
YLR109W	3.86	1.2	1.1	1.8	3.9	2.3	3.2	1.6	1.5	2.7	2.4	0.9	2.6	2.1	1.3	0.9	6.0	2.9	0.8
YOR208W	0.56	1.6	1.6	1.9	4.4	1.3	1.5	1.2	1.2	2.0	1.5	1.0	1.1	1.8	1.4	2.9	1.2	1.0	1.3
YDR098C	1.59	1.2	1.0	0.8	2.2	1.5	1.2	1.3	1.4	1.5	3.7	1.2	1.5	1.1	1.5	0.8	1.0	1.4	0.8
YHR030C	1.05	1.8	2.0	1.4	3.4	1.1	1.0	0.7	1.5	2.5	0.6	1.5	1.8	0.9	1.8	2.9	0.6	0.8	2.1
YJL159W	2.45	0.9	1.4	1.0	5.3	0.6	1.7	1.0	1.2	1.2	0.5	0.8	0.9	1.8	1.0	1.1	2.8	1.3	1.0
YMR173W	1.37	1.8	1.9	1.2	2.5	2.3	2.0	1.4	3.2	8.2	2.7	2.3	2.4	5.0	1.1	0.9	3.0	3.6	1.5
YCR021C	1.36	0.8	0.7	0.6	0.5	1.6	0.9	0.5	0.6	1.0	2.2	0.8	0.9	2.2	0.9	8.6	4.2	1.4	5.2
YDL022W	1.79	1.4	1.0	1.1	0.9	0.8	1.5	1.2	2.8	1.8	1.2	0.8	1.5	2.1	0.7	1.5	6.9	2.6	0.9
YDR033W	5.78	1.0	0.7	1.0	0.8	1.0	0.7	1.0	0.7	1.0	0.3	1.0	0.8	6.7	1.1	1.5	4.6	1.3	1.1
YFL020C	0.70	0.9	1.5	0.9	1.4	1.0	1.4	1.3	1.2	1.4	1.3	0.7	1.4	2.0	1.1	1.2	1.9	1.1	1.0
YGL073W	0.66	1.2	2.5	1.1	0.9	1.2	1.5	0.8	0.8	2.4	1.9	0.8	1.3	1.9	1.7	1.0	0.9	2.1	1.0
YIL033C	1.18	1.2	1.0	2.0	1.0	0.7	2.5	1.1	1.8	1.3	2.4	0.7	1.1	2.0	0.7	1.3	3.3	1.3	0.8
YMR021C	1.14	3.4	3.3	2.0	1.0	1.3	1.4	0.8	0.9	1.3	0.6	1.3	2.5	2.2	1.6	1.1	0.9	0.7	1.0
YBR126C	1.96	1.3	1.5	1.7	1.0	0.7	2.1	1.3	1.1		1.7	0.6	2.3	2.9	0.7	1.2	5.6	1.9	0.8
YBR067C	1.76	0.4	0.5	2.5	3.3	0.7	0.9	1.0	3.1	1.0	1.7	1.1	1.1	1.1	1.1	0.9	2.8	2.5	1.6
YDR513W	3.10	3.2	1.3	3.8	1.3	2.0	1.8	0.9	2.0	3.1	4.6	1.6	1.6	2.1	0.9	2.6	2.3	2.5	2.2
YGR088W	0.75	2.0	0.9	5.6	0.7	1.3	1.2	1.1	3.9	3.2	1.5	0.8	0.8	1.3	1.0	2.4	7.7	1.2	1.3
YHR104W	1.57	1.9	1.9	1.3	1.6	1.5	1.3	1.0	2.6	2.3	4.8	1.1	1.5	1.2	1.1	1.9	15.7	4.1	1.0
YKL161C	0.45	1.9	1.4	1.1	1.3	1.4	2.3	0.9	3.1	1.7	1.4	1.9	2.0	2.0	1.4	2.2	0.9	0.8	4.2
YPL223C	0.31	1.3	1.0	19.0	1.5	2.5	1.5	0.9	1.8	16.5	29.4	1.2	1.1	1.5	0.9	5.1	1.2	20.0	4.8
YBR054W	3.02	0.7	0.7	0.4	0.6	1.0	1.2	0.7	1.8	1.2	0.4	2.1	0.6	1.1	0.8	1.7	5.4	1.8	1.9
YAL015C	0.61	1.2	1.1	2.0	0.7	1.6	1.2	1.0	1.4	2.7	4.0	1.1	1.2	0.7	1.1	1.9	1.7	1.1	1.2
YDL025C	0.56	1.4	1.0	1.7	1.0	1.7	1.2	0.9	1.5	4.5	3.6	1.1	1.0	0.6	0.6	1.5	3.5	5.0	1.7

Gene																			
YML007W	1.54	1.4	1.0	1.4	1.0	1.2	1.7	1.1	1.3	2.5	2.1	1.9	1.1	0.5	1.0	1.3	0.9	0.8	0.9
YER042W	1.80	1.1	0.7	1.9	1.0	5.2	1.4	1.1	1.8	2.1	6.8	1.7	1.1	1.6	1.1	1.0	3.1	2.2	3.0
YOL064C	1.32	1.3	1.2	1.7	1.0	0.9	2.0	0.9	1.0	2.7	8.7	1.0	1.2	1.4	0.9	0.6	1.1	2.1	1.4
YGL181W	0.98	1.3	1.0	1.3	1.5	1.0	2.8	1.0	1.2	2.3	2.7	1.2	1.3	1.9	1.1	1.1	1.2	0.9	0.9
YJL128C	0.42	1.0	1.0	0.9	1.2	0.8	1.7	1.0	0.6	1.7	2.0	0.9	1.8	1.3	1.2	0.8	0.4	1.4	0.8
YJL165C	0.87	1.8	1.3	1.5	1.0	0.9	1.5	0.9	1.7	1.0	2.8	0.7	0.8	0.5	1.1	1.6	1.3	0.8	1.0
YJR090C	0.60	1.0	1.1	0.8	1.6	1.0	2.2	0.8	0.4	1.2	1.9	0.8	0.8	1.2	1.2	0.8	0.6	1.0	0.8
YMR186W	6.64	1.1	0.7	0.6	1.3	0.6	2.4	1.0	1.1	1.3	2.6	0.8	1.2	1.3	1.3	0.9	2.0	1.4	0.6
YNL064C	3.79	0.7	0.7	0.3	0.7	0.8	1.1	0.8	0.9	1.8	2.4	1.4	0.6	0.8	0.9	1.1	1.8	1.8	0.9
YOR008C	1.75	1.3	0.8	1.2	0.9	0.9	0.9	0.7	1.0	1.0	1.9	0.8	0.8	1.1	1.4	1.1	1.4	0.8	0.7
YPL194W	0.22	0.8	1.0	0.9	1.4	1.1	1.4	0.9	0.9	3.1	9.6	1.3	1.5	1.1	1.3	1.1	0.4	1.4	0.9
YBL093C	1.47	1.3	1.4	0.9	0.5	1.0	2.1	1.1	1.3	1.1	0.7	1.6	1.3	0.8	1.0	1.4	0.4	2.0	1.0
YKR053C	0.35	2.4	2.8	0.9	0.3	1.3	0.7	0.7	0.5	1.8	0.8	0.9	1.7	1.1	1.0	1.2	1.0	2.0	0.9
YJL158C	3.48	1.4	1.4	0.6	1.7	0.5	0.4	1.1	1.9	0.5	0.2	0.7	0.4	0.5	1.4	1.5	2.8	0.6	0.9
YER057C	2.03	1.8	1.1	2.8	1.7	1.4	1.0	1.5	1.8	1.4	0.6	1.0	1.4	1.6	0.8	1.8	3.0	2.0	1.2
YHL046C	0.55	0.9	0.9	1.4	1.0	1.4	1.4	1.1	0.4	2.1	1.0	1.0	1.3	0.8	0.9	1.3	2.1	1.7	1.1
YIL011W	0.57	0.8	0.8	1.0	0.9	0.5	0.5	0.6	2.5	0.5	0.0	0.7	0.6	0.7	1.1	0.6	3.9	0.5	0.7
YKL164C	2.75	0.8	0.8	1.1	1.2	0.3	0.9	0.8	1.0	0.7	0.4	0.8	0.8	1.4	1.1	0.9	2.5	1.1	0.6
YNR076W	0.42	0.8	1.5	0.8	1.1	0.8	0.9	0.7	1.4	2.5	1.3	1.0	1.2	1.2	1.2	1.0	2.5	1.3	1.3
YOL161C	0.89	1.0	1.1	1.6	1.1	0.9	1.2	1.3	1.5	2.0	0.7	0.8	0.9	1.0	0.9	1.4	2.4	1.1	1.2
YOR009W	0.36	0.8	0.9	0.8	0.6	0.7	0.4	0.4	1.4	0.5	0.4	0.7	0.6	0.9	0.8	0.7	3.2	0.8	0.9
YOR010C	0.61	0.6	1.4	1.1	0.6	0.4	0.5	0.5	1.2	0.7	0.6	0.5	0.4	0.5	1.2	0.6	3.2	0.7	0.7
YPL059W	1.35	1.3	1.8	2.1	1.0	1.3	0.7	0.8	1.6	1.3	2.0	1.4	0.7	1.3	1.2	1.3	2.6	0.9	1.2
YBR044C	0.57	1.3	0.9	1.4	0.9	0.9	1.2	0.8	1.1	1.2	0.8	1.1	1.5	1.0	1.4	1.9	0.7	1.4	0.8
YEL039C	1.59	1.1	0.7	3.5	0.4	1.4	0.5	0.6	1.7	1.2	1.2	1.1	0.6	1.5	0.9	5.1	1.3	0.7	1.1
YGL115W	2.46	1.2	0.8	1.7	0.7	1.2	0.7	0.9	1.0	1.2	1.2	1.0	1.4	1.2	1.2	2.0	1.2	0.6	0.9
YLR006C	0.40	1.0	1.6	0.8	0.9	1.0	0.8	0.7	1.5	1.1	1.1	0.9	1.1	0.9	1.6	6.2	0.9	0.7	0.7
YPR005C	0.24	1.1	1.0	0.8	2.7	1.3	0.7	0.6	0.4	2.0	2.8	1.2	1.2	0.8	1.0	3.8	1.5	0.8	1.3
YHL028W	0.62	2.5	1.6	2.6	0.6	1.3	2.1	1.5	0.7	0.4	0.2	0.4	2.1	1.8	1.1	0.5	1.4	0.8	0.7
YCR083W	0.98	1.3	1.3	3.1	1.0	2.4	1.8	1.1	1.8	1.8	1.8	1.5	1.8	2.4	1.6	1.8	1.5	2.8	1.1
YPL140C	0.46	1.4	0.9	1.8	0.7	1.1	0.9	0.8	0.8	0.9	0.9	1.1	1.4	0.3	0.8	1.0	0.9	1.3	0.9

表7　代謝系タンパク質遺伝子

化学物質存在下の発現mRNA／不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YCR107W	12.0	2.6	1.8	1.6	0.7	1.5	1.5	15.6	196.6	34.0	23.0	0.9	4.0	8.3	4.8	3.1	1.3	1.1	0.59
YDL243C	14.4	2.7	2.4	1.0	1.1	2.2	1.6	11.8	64.2	29.6	19.6	1.1	4.1	12.0	4.2	3.0	1.8	1.5	0.76
YFL014W	3.4	7.2	5.7	11.0	1.0	9.3	5.5	3.4	13.1	5.8	5.0	4.3	15.2	7.3	6.3	14.2	1.5	8.8	2.14
YFL056C	19.0	2.3	2.3	1.5	0.9	0.6	1.4	18.5	162.3	31.3	68.3	1.0	4.7	7.8	5.0	3.4	1.0	1.1	0.55
YFL057C	20.9	5.8	1.5	1.8	0.9	1.2	1.8	18.0	51.8	46.1	27.7	1.0	4.1	23.4	3.1	3.9	1.6	1.3	0.71
YJR155W	10.6	3.7	1.4	2.5	0.7	1.4	1.7	10.6	38.2	18.8	15.4	1.0	5.7	9.4	2.6	5.6	1.3	1.4	0.64
YNL331C	8.6	3.6	1.3	1.0	1.6	1.8	1.9	13.1	42.6	36.3	21.8	0.9	3.1	7.5	2.3	4.0	1.7	1.3	0.58
YNL332W	1.1	1.5	1.1	2.0	1.6	1.1	2.1	1.5	3.3	2.1	2.6	1.2	2.1	3.0	5.4	2.2	1.0	1.0	0.24
YOL165C	10.1	4.5	1.8	0.9	0.9	1.7	1.4	17.8	46.9	23.3	17.6	0.8	3.7	9.1	3.0	1.8	1.6	1.0	0.69
YPR167C	5.3	5.8	1.9	0.8	1.4	2.6	1.2	5.5	76.6	9.0	1.9	1.3	1.9	4.2	0.9	0.9	1.7	1.4	0.54
YBR256C	3.0	1.4	0.6	1.3	1.6	2.0	2.1	2.3	18.1	6.8	3.2	1.7	3.5	5.6	1.6	3.0	2.6	3.3	1.97
YBR296C	7.0	11.2	2.2	2.5	1.4	1.4	0.2	1.1	0.4	1.8	1.5	1.6	2.0	2.3	1.7	0.3	3.8	4.0	0.54
YDL021W	4.8	1.7	2.4	3.7	1.7	6.5	5.9	2.7	2.5	7.4	4.7	2.4	5.3	3.7	0.7	7.3	1.9	3.2	0.47
YFL061W	1.5	1.4	2.1	3.0	1.0	0.5	1.2	1.2	3.2	9.9	1.1	0.9	1.2	6.0	2.1	1.0	1.2	0.9	0.31
YGR043C	2.5	4.7	3.2	7.9	0.9	16.3	6.5	2.6	10.9	8.4	3.6	3.3	6.9	4.1	3.0	13.7	1.6	4.8	0.66
YHR112C	1.8	3.1	0.7	1.4	1.3	2.9	3.4	1.7	10.5	4.4	1.5	1.9	3.9	2.4	2.0	2.7	1.6	1.8	0.55
YIR030C	1.4	1.0	0.9	1.3	0.9	0.5	1.2	1.4	5.4	2.1	1.4	0.9	1.3	2.9	0.7	0.8	0.9	1.0	0.42
YJR010W	9.1	7.3	4.9	0.8	1.1	2.5	1.4	3.1	30.0	11.1	2.9	1.4	3.2	5.4	1.7	1.7	1.2	1.0	0.56
YKL001C	6.8	21.4	5.6	1.8	0.8	0.9	1.1	3.4	10.3	3.4	2.6	2.1	1.6	6.2	1.1	1.8	2.7	1.7	0.91
YKR097W	1.3	2.4	1.3	3.3	1.1	1.7	3.7	2.5	1.9	3.3	0.8	1.8	17.5	2.1	2.5	2.2	1.1	1.5	0.16
YLR303W	7.3	9.8	12.1	1.1	1.1	3.0	3.6	5.3	18.6	5.6	9.8	4.3	9.9	3.8	5.8	3.4	1.5	1.4	1.42
YNL274C	1.4	18.7	2.6	1.9	0.7	4.2	2.0	2.3	6.3	5.3	4.0	1.1	2.3	3.3	2.5	6.4	1.4	2.6	0.85
YOL151W	6.7	3.8	9.1	1.3	1.3	8.4	4.4	6.7	22.8	17.0	9.0	4.6	16.9	4.0	2.8	3.7	4.0	5.6	1.12
YOR226C	1.3	2.2	1.7	1.1	1.3	1.2	1.2	1.2	1.3	5.9	1.5	0.6	0.9	2.7	1.0	0.7	1.0	0.7	0.58
YJL153C	1.3	1.7	1.7	17.6	0.7	0.8	2.3	1.3	3.9	2.5	0.7	10.2	38.0	1.4	37.0	1.0	6.5	1.8	0.27
YOR153W	1.6	0.9	5.1	1.1	1.0	7.4	2.6	0.5	3.2	1.2	1.0	4.0	11.8	0.3	3.6	1.6	2.5	3.1	1.91
YPL088W	3.3	1.3	0.6	2.5	1.5	7.1	3.7	1.9	0.6	2.8	1.1	3.6	4.8	1.6	3.2	4.3	9.1	8.3	0.69
YDL124W	2.1	8.5	5.7	1.7	0.7	3.4	2.9	2.1	3.3	5.3	3.4	2.4	6.0	1.6	3.4	3.6	2.2	2.6	2.43

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YDL174C	0.63	4.0	2.2	5.1	0.6	1.1	5.9	2.8	0.9	1.7	0.5	0.8	3.6	1.7	0.5	1.3	0.9	1.8	0.9
YGL156W	0.29	1.9	1.4	4.1	3.0	1.6	6.0	2.6	2.1	2.4	5.6	1.4	2.1	2.1	1.4	2.2	1.8	2.5	1.3
YGR157W	2.10	1.3	0.8	1.0	4.6	0.7	4.8	1.8	1.0	2.0	3.3	0.7	0.8	1.0	1.2	0.8	5.2	0.9	1.0
YHR043C	1.38	1.7	1.4	2.2	2.1	1.3	2.7	2.2	1.6	1.0	1.2	3.0	2.9	2.2	0.9	1.7	1.2	1.8	1.3
YHR044C	1.12	1.4	1.3	2.4	1.5	1.3	4.3	2.3	1.7	1.1	1.1	2.0	2.6	3.3	1.2	1.5	1.7	1.3	1.3
YJR073C	0.99	2.6	2.9	3.7	28.9	2.3	10.0	4.1	2.8	2.8	6.8	1.0	2.9	2.2	0.6	2.7	2.7	2.4	1.1
YOR303W	1.47	0.8	1.2	1.2	4.1	1.6	3.3	1.9	0.9	5.2	0.9	1.6	1.2	1.8	1.2	1.0	0.5	2.2	1.1
YBR294W	0.18	0.9	1.0	0.9	1.0	1.3	3.1	1.0	1.2	5.2	5.2	1.0	1.1	1.2	1.4	2.6	0.9	12.0	6.3
YCL043C	2.37	1.0	0.9	0.8	5.7	0.6	4.1	1.5	1.7	1.2	1.6	0.8	1.0	1.3	0.9	0.7	2.5	3.7	0.6
YCL050C	2.20	1.0	1.0	0.7	0.8	1.2	2.8	1.2	1.3	2.9	3.0	1.2	1.2	1.2	1.4	0.7	1.9	1.1	1.0
YCR012W	4.48	1.3	0.8	1.4	1.4	0.9	4.1	1.2	1.8	1.5	1.4	0.8	1.4	2.5	1.1	1.2	5.1	1.5	1.1
YDR158W	3.54	0.9	1.0	0.6	1.0	0.9	2.6	1.0	1.6	1.7	1.1	1.2	0.8	1.0	1.3	0.8	1.8	0.5	1.1
YDR204W	0.62	1.7	1.1	2.8	0.6	1.1	2.9	1.2	2.2	3.7	5.7	1.1	2.2	2.2	1.0	1.4	3.0	2.3	0.9
YDR313C	0.84	1.3	1.1	2.9	0.8	1.3	2.3	1.2	1.5	2.6	4.7	1.2	1.5	1.4	1.3	1.4	1.2	1.2	1.2
YDR368W	1.70	2.0	1.1	2.3	1.2	2.0	2.6	1.4	1.8	3.8	3.8	1.7	2.1	3.0	1.0	1.8	2.2	2.2	2.0
YER091C	1.23	1.0	1.2	2.7	10.2	1.2	5.4	2.0	3.2	1.4	5.8	0.9	2.1	2.3	0.9	1.3	30.7	3.9	3.6
YFR053C	4.17	2.2	1.4	3.0	0.6	0.6	3.0	1.7	1.5	1.1	0.6	2.8	2.1	3.2	0.9	2.2	3.0	1.4	1.7
YGL062W	0.77	0.9	1.1	1.5	2.7	1.2	4.5	1.6	0.7	2.5	1.6	0.8	1.3	1.0	0.9	0.6	1.1	1.3	0.6
YGL157W	1.69	2.3	1.8	1.7	5.1	1.2	4.8	1.5	1.4	1.8	0.6	1.4	3.3	5.4	1.5	0.9	1.8	0.9	0.7
YGL184C	0.16	0.9	1.0	1.5	0.4	1.4	7.4	2.6	1.7	66.8	37.9	1.9	1.2	1.0	1.1	1.3	57.4	15.9	4.6
YGR032W	1.18	2.8	3.2	1.5	5.4	1.1	3.9	1.5	1.5	0.7	0.5	0.6	0.8	1.9	0.7	1.3	1.0	1.4	1.0
YGR124W	3.56	0.6	0.7	0.3	1.5	0.5	2.3	1.1	1.1	1.3	2.2	1.0	0.7	1.1	1.2	0.7	1.7	0.6	0.5
YGR192C	7.49	1.3	1.1	1.1	1.9	1.0	3.4	2.2	2.3	1.3	0.9	1.1	1.7	1.7	1.1	1.0	3.8	1.0	1.4
YGR244C	1.12	3.1	1.9	2.6	2.0	1.2	2.6	1.9	1.8	1.1	1.4	1.8	3.9	2.6	0.8	1.6	1.6	1.2	1.0
YGR254W	7.01	1.2	1.3	1.4	2.4	0.6	3.1	1.7	1.3	1.2	0.8	1.4	1.5	1.9	1.2	1.3	3.8	1.3	1.2
YHR018C	1.21	1.2	1.9	1.0	4.4	1.0	3.3	1.4	1.4	4.4	1.4	1.0	0.8	1.1	1.7	1.4	1.5	1.0	1.0
YIL160C	0.27	3.0	2.4	8.8	5.6	1.5	2.3	1.0	2.4	3.8	3.2	1.2	1.1	1.6	1.0	3.5	2.3	2.4	0.8
YIR017C	0.36	1.3	1.5	3.0	2.3	1.9	3.4	1.2	4.2	3.4	5.2	1.2	1.5	1.9	0.8	1.9	2.5	8.6	3.5
YJL052W	6.19	1.9	1.2	2.3	2.3	1.3	5.6	2.4	4.3	2.0	1.6	1.5	2.1	2.4	0.7	1.8	4.0	0.9	1.5
YJR009C	5.86	1.3	1.1	1.5	2.1	1.0	2.7	1.5	1.1	1.3	1.1	1.1	1.6	1.6	1.2	1.0	5.6	1.7	1.1
YJR130C	0.62	1.3	1.1	1.5	0.9	1.1	2.9	1.0	1.7	3.8	5.2	1.3	1.3	2.0	1.4	0.9	0.8	0.6	1.1

YJR149W	1.0	1.8	1.4	2.3	0.8	1.0	1.7	1.0	1.4	1.0	0.7	1.0	3.5	1.4	1.4	2.4	1.1	1.2	0.34
YKL218C	2.1	1.0	2.2	1.8	1.2	3.6	1.6	1.7	3.4	2.7	1.7	1.2	5.1	1.4	0.8	3.1	2.5	2.6	0.60
YLR027C	1.0	1.5	2.3	0.8	0.9	2.0	1.4	0.7	1.6	2.7	1.6	1.3	2.5	1.0	1.4	0.9	1.3	1.3	1.39
YLR133W	0.9	1.6	1.4	0.7	1.0	2.2	1.3	0.7	6.1	2.3	0.6	1.5	3.3	1.1	1.9	1.0	1.1	1.3	0.36
YLR155C	1.4	1.1	2.4	1.8	1.7	1.6	2.0	1.0	3.0	1.8	2.0	1.1	3.3	1.1	1.2	2.2	1.4	2.2	1.63
YLR158C	1.4	1.2	2.1	1.7	1.7	1.5	2.0	1.1	2.7	s	2.4	1.1	3.2	1.2	1.1	2.1	1.4	2.0	1.57
YLR195C	0.8	0.9	1.0	0.8	1.0	0.8	1.1	1.0	0.6	0.7	0.8	1.3	2.3	0.7	0.9	0.8	0.9	1.0	1.55
YLR345W	1.4	1.4	1.4	1.2	1.2	1.6	1.2	1.4	4.5	4.0	2.5	1.6	3.5	1.5	1.0	1.2	1.2	1.4	2.65
YML004C	0.8	1.6	2.5	1.0	0.7	1.7	2.1	1.9	3.9	2.2	2.2	1.1	2.4	1.4	2.1	4.5	1.5	2.4	2.41
YML131W	11.2	4.3	7.7	1.9	0.7	2.0	3.0	6.1	11.1	17.7	14.4	1.1	2.4	2.7	2.2	1.6	2.5	3.0	1.15
YNL071W	0.9	0.9	1.7	1.5	0.6	1.3	1.4	0.9	1.1	1.2	1.6	1.3	2.5	0.8	1.1	1.1	1.0	1.2	1.61
YNL241C	1.3	2.5	4.3	1.0	0.8	0.9	3.2	0.9	3.4	7.4	3.0	2.0	4.9	1.1	7.0	2.8	1.0	1.0	0.68
YOR120W	1.8	5.4	2.8	3.2	1.4	3.4	2.7	2.0	3.3	3.0	3.0	1.2	3.6	2.4	1.5	3.9	1.3	2.6	1.06
YAL023C	0.4	1.5	1.0	0.7	1.0	0.6	0.8	0.6	0.3	0.4	1.7	1.2	2.3	0.4	2.5	0.4	1.0	0.7	1.49
YAL060W	1.1	1.8	3.2	2.7	1.2	4.2	3.3	0.9	0.6	2.5	2.4	0.8	2.2	0.9	0.9	3.2	1.1	1.8	2.39
YAL062W	0.8	1.5	1.4	1.1	1.0	1.2	1.1	0.8	1.4	0.7	1.2	1.0	2.1	0.8	1.1	1.3	1.0	0.8	0.86
YBR006W	1.3	1.6	2.6	1.5	1.3	3.1	3.3	1.0	4.5	2.7	1.9	1.1	2.2	1.1	1.1	3.0	1.2	1.8	0.62
YBR056W	1.4	1.7	1.4	2.3	1.4	2.3	5.5	1.4	3.0	3.3	1.8	1.4	3.0	1.0	0.7	2.8	2.4	3.4	1.13
YBR149W	1.1	2.0	2.7	1.7	1.4	2.8	3.1	1.5	1.7	1.9	1.9	1.4	2.2	1.2	0.7	2.7	2.1	3.4	2.72
YBR284W	0.9	1.5	2.8	4.8	1.3	1.9	1.0	0.9	6.5	3.2	1.4	1.2	2.8	1.6	0.8	0.8	1.1	1.0	0.25
YCL018W	1.2	2.7	2.4	1.4	0.8	2.3	2.3	1.3	2.1	4.3	3.7	1.6	3.2	1.0	0.6	2.3	1.3	1.0	0.99
YCL040W	0.9	7.1	10.1	2.0	0.5	3.5	2.9	0.7	0.9	3.0	8.2	2.3	5.6	0.7	3.4	3.1	1.4	1.7	1.98
YDL010W	1.7	0.8	0.6	0.7	1.2	1.1	1.9	1.1	2.2	1.3	1.3	0.9	2.0	2.2	1.4	1.4	1.5	2.4	0.93
YDL024C	1.6	1.5	1.2	2.2	1.0	1.7	0.9	1.7	4.2	3.4	1.2	1.7	2.6	1.9	2.1	2.8	0.9	1.1	0.40
YDL095W	0.5	1.3	1.0	0.8	0.8	1.0	0.8	0.7	1.2	0.7	1.0	1.1	2.2	0.5	2.0	0.5	0.7	0.9	1.57
YDL245C	1.0	2.4	1.6	2.2	1.3	1.1	1.2	1.2	0.4	2.8	1.5	1.0	2.0	1.2	1.8	1.5	1.0	1.1	0.28
YDL246C	1.2	1.5	1.3	1.1	1.1	1.4	2.1	2.4	4.4	3.6	2.6	1.2	2.9	1.7	2.6	1.7	1.8	1.8	0.43
YDR001C	0.8	2.2	2.6	1.0	1.1	2.2	1.5	0.9	2.2	3.0	0.7	1.1	2.8	1.0	4.4	1.9	1.1	1.6	0.75
YDR058C	1.2	2.2	0.8	2.7	0.7	1.0	1.4	1.9	2.4	1.7	1.7	1.2	2.5	1.8	1.2	1.9	1.1	1.6	0.56
YDR072C	1.3	1.3	1.7	1.2	0.9	1.5	0.9	0.7	0.6	0.7	0.7	0.9	1.9	0.6	0.4	0.7	1.9	1.9	2.81
YDR127W	0.8	0.9	1.5	0.7	1.2	0.8	0.9	0.7	0.6	1.3	1.3	0.8	1.7	1.0	1.3	0.6	0.9	0.7	0.78

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YDR261C	0.68	0.8	0.9	0.6	2.3	0.9	1.9	1.0	1.2	1.0	1.7	0.9	0.8	1.4	1.3	0.7	1.9	1.2	1.2
YDR272W	1.51	2.3	1.4	2.1	1.1	1.4	2.4	1.2	2.1	1.9	2.5	2.1	1.7	2.3	0.7	1.8	0.8	4.0	1.0
YDR497C	1.45	1.8	1.6		10.1	0.6	2.7	0.9	0.7	0.8	0.4	0.6	0.5	0.6	0.7	1.3	0.6	0.5	0.7
YDR516C	1.66	1.2	1.1	1.7	0.4	0.7	2.5	1.1	2.8	5.2	1.8	1.3	3.9	1.8	1.3	2.1	7.8	1.5	1.2
YER053C	1.83	2.3	1.2	2.8	1.1	1.3	4.1	1.7	2.4	3.9	1.3	1.3	2.8	2.8	0.6	1.7	1.9	1.8	1.6
YER096W	0.22	1.2	1.0	2.0	1.4	3.1	2.3	0.9	1.1	3.5	7.5	1.0	0.9	1.2	1.3	2.0	2.0	2.3	1.1
YER178W	2.18	0.9	1.1	1.0	1.8	0.9	2.4	1.3	2.5	1.3	1.7	0.8	1.6	2.5	0.7	1.0	3.6	0.9	0.8
YFL030W	0.50	0.8	1.0	0.6	1.1	0.8	2.2	1.2	5.4	4.9	24.5	1.6	0.6	1.3	1.1	2.0	3.1	6.0	1.6
YFL031W	3.16	1.1	1.2	0.9	2.7	0.4	2.6	1.0	1.2	0.7	1.0	0.7	0.9	0.3	1.0	0.7	2.1	1.3	0.5
YFR047C	1.57	1.6	1.5	3.6	0.6	1.9	2.7	1.7	2.3	1.5	3.0	1.0	2.0	2.0	1.2	2.6	2.7	4.0	1.3
YGL248W	0.22	1.2	1.1	2.9	1.8	1.3	2.0	0.8	1.0	2.9	0.2	0.8	1.6	2.7	1.3	0.7	0.9	1.3	1.3
YGR037C	3.40	2.0	1.4	2.6	1.5	1.5	2.7	1.5	1.4	1.4	1.7	1.4	1.4	1.1	1.0	0.8	2.2	1.2	1.0
YGR055W	1.42	0.7	0.7	0.6	2.1	1.2	1.9	0.9	1.5	2.4	5.0	1.1	0.6	1.1	1.3	0.7	12.0	5.7	2.5
YGR194C	0.63	2.0	1.1	2.6	0.6	1.0	2.2	0.8	0.7	2.1	2.4	1.2	2.2	1.9	0.8	2.1	1.3	1.0	0.9
YGR256W	0.94	0.8	1.1	5.3	2.7	1.1	3.9	1.5	2.7	2.5	3.4	2.2	1.4	6.2	0.9	0.8	2.3	1.5	1.2
YHR111W	0.44	1.2	1.1	1.3	1.1	1.7	2.2	0.9	1.9	4.2	4.5	1.3	1.6	1.3	1.5	1.9	0.8	1.3	1.4
YHR174W	7.34	1.2	1.0	1.1	2.0	0.6	3.6	1.5	1.4	1.5	1.0	1.2	1.6	1.5	1.3	1.2	3.3	1.4	1.1
YHR176W	0.27	1.6	1.4	1.8	1.5	1.3	1.9	1.2	1.2	6.4	6.3	1.3	1.4	2.3	1.0	1.4	1.1	2.0	1.8
YIL045W	0.37	1.8	1.1	2.9	0.6	1.6	2.0	1.5	1.2	3.2	2.1	1.1	1.6	1.7	1.3	2.2	1.9	1.4	1.7
YIL107C	0.58	2.0	1.2	2.7	1.0	1.6	1.9	1.1	0.9	3.5	3.5	1.3	1.6	1.0	0.8	1.5	1.1	0.8	1.5
YIL155C	0.51	1.4	1.1	3.8	1.4	1.3	2.0	1.4	1.3	2.9	2.5	1.0	2.2	1.4	1.3	3.7	1.4	0.7	1.0
YIR034C	0.92	1.0	1.0	1.3	1.9	1.2	2.6	1.4	3.0	3.5	3.2	1.7	0.8	1.3	1.1	0.6	2.5	1.1	1.2
YIR036C	0.64	1.3	1.5	4.0	1.1	1.2	1.9	1.2	2.8	1.9	3.3	1.0	1.0	0.7	0.9	1.8	2.6	1.7	1.0
YJL031C	1.02	1.9	1.2	1.9	2.0	3.0	2.6	1.3	1.9	3.6	4.7	1.8	2.3	1.6	1.7	1.3	0.5	1.2	1.6
YJL068C	0.95	1.5	1.4	2.6	0.5	1.5	2.7	1.7	3.2	3.1	6.5	1.1	1.2	1.1	0.7	1.6	3.4	2.7	1.2
YJL099W	0.55	1.6	1.2	1.7	1.4	1.8	2.4	1.0	0.9	3.1	3.1	1.0	1.8	2.0	1.9	1.3	0.3	1.2	1.2
YJL172W	0.62	1.8	1.8	0.5	1.2	0.9	3.1	1.1	1.4	1.9	0.7	0.7	1.0	3.8	0.9	1.5	1.8	2.1	0.8
YJL219W	0.91	1.2	1.6	1.4	2.6	1.1	4.0	1.1	2.3	2.3	4.0	1.5	0.9	1.5	1.2	1.6	3.1	2.5	1.2
YJR137C	0.46	0.8	0.9	1.3	1.0	1.2	2.1	1.4	2.0	4.8	9.0	1.6	0.8	1.5	0.6	0.8	4.6	2.9	2.7
YKL035W	2.54	1.9	1.0	1.5	1.0	0.6	2.0	1.0	2.1	1.2	0.8	1.0	0.6	1.2	0.8	1.2	4.8	0.9	1.0
YKL091C	0.83	2.0	1.4	4.6	1.1	1.5	2.0	1.3	1.7	3.2	2.3	1.3	1.9	2.2	1.0	2.6	1.4	1.3	1.2

YKL104C	1.0	1.0	1.6	1.2	1.4	0.9	2.3	1.1	1.4	1.8	2.2	1.6	2.2	0.8	3.3	0.6	1.0	1.1	1.25
YKL152C	1.3	1.3	1.9	0.9	1.3	1.6	1.5	1.0	0.9	1.5	1.7	1.5	2.7	1.0	1.8	2.0	1.1	1.7	3.28
YKL213C	0.9	0.8	1.0	1.3	0.7	1.0	1.0	1.1	4.8	2.1	1.3	0.9	2.1	0.9	1.1	1.5	1.4	1.6	0.77
YKL215C	0.6	1.1	1.3	0.8	1.0	2.1	1.1	1.1	1.3	1.9	0.5	1.0	2.6	1.0	0.9	0.8	0.8	0.9	0.38
YLL058W	1.0	3.8	1.4	0.9	0.8	1.4	1.5	0.9	3.5	3.6	2.0	1.0	2.3	0.8	1.9	1.1	1.4	1.3	0.39
YLR299W	1.2	1.9	1.5	1.3	0.6	0.9	0.8	1.0	4.9	2.3	1.7	1.0	2.9	1.3	1.5	0.9	1.3	1.4	0.57
YLR348C	1.1	4.5	1.2	1.2	0.9	1.9	0.9	0.9	2.1	1.3	1.3	0.9	1.9	1.0	2.4	1.1	1.1	1.0	0.64
YML054C	1.5	1.8	1.3	3.4	1.3	1.8	1.2	1.5	4.1	1.8	1.4	1.8	2.8	2.1	1.1	7.8	1.1	1.6	0.25
YML070W	0.9	1.7	2.5	1.9	1.4	2.2	3.1	1.3	4.5	3.9	1.5	1.3	3.3	1.3	0.9	2.6	1.2	1.3	1.03
YML100W	0.8	2.7	10.6	1.4	0.9	2.8	2.2	0.7	1.7	1.4	3.2	1.2	3.8	1.2	1.8	2.2	1.0	1.5	0.88
YMR008C	0.7	0.9	1.4	1.0	1.1	1.7	0.9	0.5	0.3	0.6	1.3	1.1	3.7	0.7	2.0	1.2	3.0	1.9	1.59
YMR020W	1.3	1.0	0.9	1.7	1.4	1.6	2.7	1.2	2.3	2.9	1.5	1.1	3.0	1.1	1.8	2.8	2.3	2.2	0.81
YMR105C	1.9	3.0	5.0	4.2	0.9	2.8	2.8	1.1	0.6	2.9	3.0	1.7	3.3	1.0	0.9	2.0	1.6	2.6	1.21
YMR271C	1.6	1.6	1.3	2.0	1.1	4.2	3.4	1.8	8.0	4.4	1.7	1.3	3.6	1.8	0.6	5.7	1.3	2.2	0.70
YNL012W	1.3	1.3	1.8	0.8	1.3	1.7	2.0	1.8	3.3	3.2	1.6	1.3	2.9	1.0	1.6	1.2	1.3	1.5	0.24
YNL045W	0.8	1.3	2.0	1.3	1.1	2.2	1.8	0.7	1.3	1.1	2.1	0.9	2.6	0.8	0.8	2.4	1.1	1.1	0.80
YNL104C	1.1	1.3	3.0	0.9	0.8	0.8	0.6	0.9	1.1	2.0	2.1	1.1	2.1	0.9	2.5	1.5	0.9	0.9	1.69
YNL231C	1.5	0.8	0.8	0.5	2.1	1.8	2.5	1.5	2.2	1.3	1.3	1.8	2.9	0.9	0.9	0.7	3.1	4.0	2.13
YNR019W	1.0	1.3	1.6	1.2	0.8	1.3	0.8	0.7	1.8	1.9	0.7	1.0	2.1	1.0	1.6	0.8	2.4	2.0	0.37
YNR033W	0.6	0.8	0.8	1.0	1.3	1.6	1.2	1.1	3.6	4.2	0.4	1.1	3.8	0.9	1.3	2.2	0.9	1.1	0.72
YNR059W	1.1	0.9	0.2	1.4	1.4	0.8	1.6	1.3	1.8	1.4	1.0	0.8	2.4	1.0	1.0	2.0	2.6	2.2	0.45
YOL126C	1.0	0.8	1.0	1.6	0.7	1.5	1.4	0.9	0.8	2.4	1.8	1.1	2.6	1.2	1.4	2.5	1.6	2.4	0.59
YOL153C	1.0	1.2	2.1	3.9	1.2	1.9	3.3	1.0	2.5	3.2	2.4	1.9	2.9	1.5	1.2	5.4	1.1	1.7	0.37
YOR099W	0.8	1.3	2.1	1.3	1.5	0.9	1.0	0.9	0.6	0.7	1.2	1.1	1.6	0.7	1.5	1.1	1.2	2.3	3.94
YOR130C	0.8	1.7	1.4	1.0	1.8	1.6	1.3	0.8	2.0	1.7	0.6	0.9	2.1	1.3	1.0	0.8	1.5	1.1	0.51
YOR336W	0.7	1.4	0.7	1.0	1.3	1.7	1.2	0.8	1.7	1.5	1.4	1.0	2.1	1.1	0.6	0.9	1.0	1.0	0.44
YOR347C	0.9	0.9	2.1	2.2	0.7	0.9	0.9	0.8	0.5	0.9	1.4	1.2	1.8	0.9	2.0	1.4	1.7	1.3	1.31
YPL017C	1.0	2.5	0.8	1.0	1.3	1.5	1.4	1.3	3.0	6.7	0.4	1.0	1.9	1.6	1.0	1.3	1.3	0.8	0.19
YPR026W	0.9	1.2	5.0	1.3	0.8		1.3	1.0	0.9	3.1	1.6	1.2	2.3	1.5	3.1	2.5	0.9	1.3	0.26
YAL012W	1.1	6.5	10.4	0.8	0.6	1.6	0.6	0.7	4.7	3.9	4.0	1.1	1.1	0.9	3.1	1.0	0.9	0.8	0.96
YBR029C	0.7	0.2	1.8	1.0	1.4	0.8	0.4	0.7	2.0	1.1	0.7	1.3	1.7	0.9	3.5	0.9	0.6	0.8	1.56

ORF																			
YBR222C	0.52	0.9	0.8	2.1	4.3	0.5	1.6	0.9	1.3	1.0	0.7	0.6	1.0	1.3	0.7	0.8	1.3	1.2	0.6
YCL009C	0.68	0.8	1.1	0.9	6.5	0.7	1.6	1.7	1.5	1.6	0.9	1.1	1.3	1.8	0.7	0.5	2.0	0.9	0.6
YCL064C	1.42	0.3	0.3	1.0	21.4	0.8	1.6	0.7	1.8	5.2	1.7	2.4	13.4	3.3	1.4	0.8	0.8	0.6	0.6
YCR098C	0.22	1.6	1.7	0.8	11.0	1.1	1.4	1.3	1.3	2.4	1.4	1.0	1.2	1.6	1.4	2.0	1.7	3.0	1.6
YDR502C	2.75	0.9	0.9	1.0	8.2	0.8	1.2	1.3	1.3	0.9	1.6	0.9	0.9	1.5	1.5	1.2	2.4	2.8	1.2
YER026C	4.48	3.2	1.7	1.4	4.0	1.1	1.9	1.7	0.9	1.5	0.9	0.8	1.6	2.5	1.2	1.0	3.3	0.6	0.8
YHR137W	1.40	1.3	0.8	0.4	2.8	0.8	0.6	0.6	0.6	0.9	0.2	0.4	0.4	0.7	1.0	1.7	2.4	1.0	0.7
YMR189W	0.88	0.8	1.0	0.9	5.6	1.6	0.9	0.6	8.2	0.9	0.7	0.4	0.8	1.9	0.4	2.8	1.9	0.8	0.7
YNL106C	0.37	0.9	1.1	1.2	3.3	1.1	0.9	0.8	0.9	1.4	0.7	0.8	0.9	1.0	0.8	1.5	0.8	1.4	1.0
YNL169C	1.05	1.3	1.1	0.8	3.4	0.9	1.7	1.0	0.8	1.1	1.1	0.8	0.7	1.4	0.7	1.2	1.4	1.4	0.7
YNL322C	0.75	1.0	0.9	0.9	3.7	1.2	0.8	0.7	0.6	0.8	0.7	0.7	0.9	1.1	1.4	0.8	1.9	0.9	0.8
YAL038W	7.02	1.0	1.0	0.9	3.1	0.5	1.8	1.2	1.0	1.1	0.1	1.1	0.9	1.3	1.4	1.4	3.0	1.0	1.0
YBR023C	0.93	0.9	0.7	0.7	2.8	0.8	0.5	0.8	0.9	0.4	0.3	0.5	0.7	0.5	0.8	1.1	1.3	0.8	0.5
YCR048W	0.29	0.8	1.2	1.1	3.1	0.9	1.3	0.9	1.2	0.5	0.8	0.8	0.9	0.2	0.9	0.6	1.0	1.1	0.5
YDR380W	1.04	0.8	0.8	0.2	2.4	0.6	0.4	0.4	0.4	0.3	0.2	0.2	0.5	0.4	1.1	1.7	0.8	0.8	0.8
YER069W	0.25	0.9	1.1	1.1	2.4	1.3	1.4	0.8	1.5	10.4	0.8	1.5	1.0	1.3	1.5	1.4	3.3	0.8	1.3
YGL022W	0.91	0.7	0.9	0.3	4.0	0.5	1.0	0.7	0.8	0.4	0.9	0.4	0.7	0.9	1.0	0.3	1.4	0.8	0.5
YGL126W	0.34	0.9	0.9		2.8			0.6	1.0	0.7	1.6	0.7		1.6	1.1	0.8	1.4	1.3	0.6
YGL209W	0.63	1.5	1.1	2.8	3.2	1.6	1.9	1.3	0.8	0.4	0.6	1.1	1.0	1.0	0.7	2.6	1.1	1.6	1.2
YGR282C	5.04	1.5	1.1	1.4	2.9	1.0	1.2	1.3	1.5	0.7	0.8	1.0	1.1	2.2	1.0	1.9	4.6	0.7	1.3
YIL154C	0.39	1.0	1.2	1.2	4.3	0.9	1.7	1.1	1.2	0.4	2.4	0.6	1.3	1.1	0.9	0.8	1.9	1.3	0.8
YJL088W	0.27	0.9	1.4	0.7	5.7	2.0	1.0	0.7	0.9	0.8	3.2	1.3		2.8	0.9	0.5	2.2	0.8	0.9
YJR148W	1.50	1.7	1.3	1.3	3.2	1.3	1.1	0.8	0.6	3.0	0.7	0.6	2.1	2.0	0.6	3.5	2.0	1.4	0.7
YLR180W	3.23	0.7	0.8	0.5	2.5	0.6	0.6	0.6	1.7	0.9	0.8	0.9	0.6	1.2	0.8	1.0	2.4	1.4	1.3
YLR273C	0.20	1.0	1.0	1.5	2.6	1.3	1.7	0.9	1.4	2.4	2.8	1.3	1.2	1.2		2.4	1.3	1.0	1.4
YLR300W	5.14	0.5	0.7	0.3	2.7	0.6	0.2	0.5	1.0	0.5	0.0	0.8	0.5	1.1	0.8	1.0	0.8	0.8	0.9
YLR307W	0.16	1.0	1.1	0.9	3.9	1.9	1.0	0.7	0.8	0.7	0.6	1.2	1.5	1.2	1.4	3.3	0.7	0.4	0.9
YMR296C	0.52	0.7	0.8	0.5	6.7	0.7	0.9	0.8	0.8	0.6	0.4	0.5	0.6	0.4	0.4	2.6	1.2	0.7	0.6
YOL058W	0.82	0.8	1.2	0.9	2.7	1.5	1.2	1.3	2.3	15.7	0.1	1.6	0.4	0.8	1.2	0.9	1.7	0.5	0.8
YBR183W	1.47	2.4	1.4	2.1	1.1	1.3	1.4	1.2	1.9	2.0	0.4	1.0	1.7	2.5	0.9	2.9	2.0	1.5	1.8
YDR019C	2.48	1.6	1.2	1.8	1.8	1.6	1.0	0.7	1.8	0.7	0.4	0.7	1.4	4.8	0.9	4.0	1.7	0.5	1.4

Gene																			
YIL167W	3.3	1.6	2.0	1.0	1.0	7.7	1.2	1.9	6.9	12.7	1.9	0.7	1.2	1.4	0.6	2.3	0.7	0.8	2.11
YKR039W	1.4	3.5	1.3	1.7	1.0	2.8	1.0	1.0	1.9	2.0	1.9	1.5	1.3	1.2	1.7	1.9	0.9	1.1	0.40
YNL037C	1.4	1.8	1.7	1.1	1.7	2.8	2.8	1.0	0.6	3.2	1.4	1.3	1.9	1.3	0.9	1.4	0.9	1.3	2.05
YNR002C	1.3	1.6	1.0	2.0	1.2	2.3	1.2	1.0	3.9	1.6	1.6	1.2	2.1	1.2	1.0	2.4	1.5	2.1	0.29
YOL143C	1.0	1.4	1.2	1.2	0.9	3.5	1.3	1.2	0.8	1.0	2.0	1.2	1.2	0.7	1.0	2.2	1.8	1.4	2.30
YOR136W	1.0	0.9	3.5	1.0	1.5	3.9	3.2	1.1	0.3	3.4	1.4	1.2	1.5	0.9	1.2	1.3	0.8	1.3	3.20
YAL044C	1.5	1.1	1.0	3.0	0.8	2.2	1.0	0.8	0.4	0.6	1.4	0.6	1.1	1.4	0.7	1.0	1.4	1.8	4.07
YAL054C	1.2	1.1	1.4	1.6	1.1	2.2	1.1	1.1	8.9	4.1	1.3	1.0	1.8	1.3	0.9	2.5	1.5	1.4	0.24
YAR071W	1.6	0.8	1.0	0.7	1.6	2.0	0.3	1.4	0.3	0.3	1.1	2.0	0.3	1.1	1.1	0.3	0.7	1.6	3.21
YBL001C	1.1	1.5	1.0	1.6	1.0	2.4	1.3	1.0	1.5	0.9	2.3	0.7	1.0	1.5	1.0	1.7	1.6	1.8	2.38
YBR014C	1.1	1.2	0.8	0.9	1.4	2.0	1.4	1.2	1.3	0.8	1.8	0.6	0.9	1.2	1.2	1.5	1.0	1.6	1.29
YBR035C	1.1	1.0	1.7	1.1	1.3	2.3	1.5	1.5	2.2	1.5	2.0	1.2	1.8	1.3	0.7	2.1	1.5	1.9	1.89
YBR068C	1.1	1.0	1.9	2.5	1.4	1.9		1.0	0.8	2.5	0.8	0.8	2.2	1.8	1.6	5.5	1.1	1.3	1.99
YBR111C	1.0	0.9	1.0	1.7	1.3	3.0	2.2	1.7	1.9	1.9	1.5	1.2	1.6	1.6	0.7	3.5	1.4	2.4	3.20
YCR037C	0.7	1.0	0.8	0.8	1.3	1.8	1.0	0.7	0.6	0.6	0.8	0.7	1.3	0.8	1.0	1.1	1.4	0.9	0.74
YDL022W	0.9	2.6	6.9	1.5	0.7	2.1	1.5	0.8	1.2	1.8	2.8	1.2	1.5	0.8	0.9	1.1	1.0	1.4	1.79
YDR009W	1.4	0.8	1.5	1.0	1.2	2.4	1.4	1.2	1.3	2.0	0.1	1.0	1.2	1.5	3.2	1.0	1.2	1.0	0.21
YDR410C	0.8	2.0	1.3	0.9	1.1	2.5	1.4	0.9	1.2	1.5	1.6	0.9	1.2	1.3	1.2	0.8	1.0	1.0	1.33
YDR487C	2.2	0.9	1.3	1.1	1.3	2.3	1.3	1.8	2.7	2.3	2.1	1.3	1.5	2.5	1.0	1.5	1.5	1.9	2.61
YEL011W	2.0	1.6	1.7	6.3	1.1	2.8	2.7	0.9	2.5	1.6	3.7	1.5	1.5	1.5	0.4	2.4	1.4	2.5	0.89
YFR015C	1.2	0.8	3.2	2.1	1.2	3.0	7.3	0.7	0.3	1.8	3.9	0.4	2.5	3.1	0.4	2.4	1.3	1.2	0.66
YGL001C	1.0	1.0	1.4	1.1	1.5	2.8	1.4	1.1	0.8	0.8	1.6	0.9	1.0	1.1	0.9	2.2	1.9	2.1	2.53
YGL104C	0.8	2.0	2.1	1.8	1.0	2.1	1.2	0.8	4.6	2.1	1.8	1.1	2.0	1.0	0.9	1.7	1.3	1.3	0.58
YGL154C	1.3	1.4	1.5	0.9	1.0	1.7	0.7	1.2	2.0	1.4	0.9	0.9	2.0	1.1	0.8	0.7	1.0	1.1	0.57
YGL253W	0.8	1.0	3.2	0.7	1.0	2.4	1.7	1.1	0.3	1.4	1.0	1.2	1.5	0.5	0.8	0.4	0.7	0.8	4.63
YGR060W	0.7	0.6	0.9	0.7	1.3	2.5	0.5	1.0	0.5	0.4	0.8	1.0	0.6	0.8	1.4	2.1	1.3	1.6	4.19
YHR037W	0.7	0.9	1.3	1.6	1.9	1.8	1.2	1.0	0.9	2.2	1.7	1.1	1.1	1.1	1.1	2.0	1.0	1.4	1.15
YHR092C	2.3	1.0	7.5	2.5	1.4	1.7	0.5	1.5	0.2	0.9	1.5	1.0	0.5	1.6	0.2	1.2	0.9	1.3	6.09
YHR190W	0.8	3.9	1.2	1.2	1.8	1.7	1.9	1.2	2.4	1.9	1.3	1.1	1.7	1.3	1.3	1.8	1.3	1.8	2.15
YIL033C	0.8	1.3	3.3	1.3	0.7	2.0	1.1	0.7	2.4	1.3	1.8	1.1	2.5	0.7	1.0	2.0	1.0	1.2	1.18
YIR035C	1.4	1.8	0.9	1.6	0.7	2.1	1.3	1.3	0.7	1.2	1.3	0.9	1.1	1.1	1.4	1.0	1.1	0.9	1.51

Gene																			
YJL132W	1.0	0.7	0.8	1.6	1.3	2.0	1.7	1.0	1.6	1.4	1.4	1.0	1.3	1.4	1.1	2.1	1.3	1.5	0.37
YJL196C	0.9	0.9	2.5	1.3	1.1	2.0	0.7	0.7	1.1	0.9	2.3	1.1	0.6	0.8	0.6	1.7	0.9	1.9	2.85
YJR142W	1.2	0.6	1.1	1.1	1.3	2.4	1.7	1.0	0.6	0.8	0.9	0.8	1.6	1.3	0.6	2.0	1.2	1.4	0.94
YKL067W	1.1	1.9	2.1	1.4	1.9	2.2	2.6	1.2	0.9	1.6	1.8	0.9	1.7	1.2	1.1	2.4	1.4	3.2	3.29
YLR142W	4.4	2.7	1.1	6.1	1.3	3.1	1.2	2.1	3.1	4.4	3.8	0.8	1.2	2.1	1.6	3.4	1.9	3.2	0.28
YML110C	1.1	0.8	1.9	1.6	0.8	2.6	2.0	1.4	2.7	2.2	1.7	1.1	1.8	1.4	1.3	2.3	1.1	1.6	2.01
YMR272C	0.7	1.0	1.6	0.7	1.1	2.6	1.0	0.8	0.4	0.6	0.8	1.2	1.2	0.8	1.1	1.5	1.3	1.4	1.66
YNL130C	0.6	0.7	2.4	0.7	0.8	2.4	1.3	0.8	1.7	2.4	1.5	0.9	1.9	1.0	2.5	0.7	0.7	1.2	1.18
YPR006C	1.9	1.5	0.5	1.9	2.0	2.4	2.8	1.5	1.5	3.9	2.4	1.1	1.8	1.2	0.7	1.6	1.8	2.1	0.46
YBR050C	2.4	1.9	1.9	3.1	1.0	4.1	2.6	1.7	5.8	3.2	1.1	1.0	1.3	1.3	0.5	1.7	1.5	1.8	0.41
YBR145W	1.5	0.7	2.8	0.9	1.1	11.5	58.8	1.0	0.1	1.1	1.1	1.0	2.0	2.2	1.2	3.6	1.7	2.0	2.17
YBR299W	1.8	0.9	1.1	3.5	1.6	0.8	3.6	2.2	1.1	5.3	2.4	1.2	0.7	1.4	0.6	3.9	1.0	1.1	0.32
YEL020C	1.0	1.5	0.8	2.9	1.5	1.3	2.4	1.2	1.4	1.1	1.3	0.8	1.2	1.0	1.4	2.1	1.2	1.3	0.31
YGL039W	0.8	1.4	2.1	1.3	1.3	1.7	4.2	1.3	0.7	2.8	1.1	1.3	1.5	0.9	1.5	1.5	0.6	1.0	1.09
YGL134W	0.9	1.3	0.5	0.8	1.4	1.2	2.3	1.4	1.1	1.4	1.1	0.9	0.7	1.1	0.5	1.7	0.9	1.3	0.53
YJR159W	1.4	2.3	1.3	1.7	0.9	1.4	2.3	2.7	5.2	2.8	2.2	1.5	2.1	2.0	2.3	5.2	1.7	2.3	0.30
YOL157C	1.0	1.1	1.3	2.5	1.4	0.9	2.7	1.4	2.3	4.8	1.2	1.2	1.4	1.2	1.1	3.5	1.4	1.3	0.41
YOR344C	1.1	1.1	0.4	0.7	1.9	2.0	2.4	1.4	0.3	0.9	0.6	1.3	1.8	0.6	0.7	0.6	1.3	1.3	2.11
YPL265W	0.7	0.4	2.3	1.1	1.0	2.3	8.9	2.3	0.2	1.2	1.8	0.9	1.1	1.1	1.2	2.0	0.5	0.4	1.42
YBR126C	0.8	1.9	5.6	1.2	0.7	2.9	2.3	0.6	1.7		1.1	1.3	2.1	0.7	1.0	1.7	1.5	1.3	1.96
YCR005C	1.1	1.9	2.0	1.2	0.9	1.6	4.4	1.2	1.5	1.5	2.1	0.5	0.7	0.8	0.7	0.7	1.6	1.7	2.38
YDR452W	1.1	1.1	1.3	0.8	1.2	2.0	1.9	1.0	1.4	1.3	1.5	0.9	1.4	1.2	1.3	1.3	1.9	2.2	1.54
YGR019W	1.2	0.8	1.4	1.7	0.8	2.4	2.4	1.2	2.9		1.1	1.2	2.1	1.3	2.2	2.4	1.3	2.0	0.79
YGR255C	0.9	1.4	1.4	1.5	1.3	3.2	1.8	1.0	2.5	1.8	2.0	1.0	2.5	0.9	1.0	1.1	1.1	1.1	0.81
YIL098C	1.4	1.6	0.5	2.0	1.7	1.7	2.2	1.6	1.9	1.9	1.4	1.6	1.3	1.9	0.7	2.0	1.2	1.6	0.75
YIL172C	1.1	1.1	1.6	1.7		1.3	2.5	1.6	2.8	7.1	1.0	1.6	2.0	1.3	1.4	2.8	1.1	1.2	0.42
YLR100W	0.8	1.4	1.3	1.9	1.8	1.8	2.3	1.0	0.9	1.0	0.9	1.0	1.6	1.1	0.6	1.9	1.5	2.1	1.88
YOR221C	0.8	1.0	0.9	1.1	1.7	0.8	2.1	0.9	1.4	1.7	1.1	0.8	1.0	1.1	1.0	1.4	0.9	1.2	0.39
YPL123C	1.2	0.8	1.8	3.0	0.8	1.9	2.7	1.2	4.2	2.3	1.9	1.0	2.2	1.6	1.4	2.6	1.6	3.2	0.71
YBR093C	2.9	1.2	1.7	1.3	1.1	0.6	0.3	1.7	0.1	0.5	3.1	2.0	0.2	1.3	2.7	0.4	0.8	1.9	3.33
YBR196C	0.8	0.6	3.9	1.4	0.8	0.8	1.4	1.1	0.3	0.9	2.3	1.0	1.4	0.5	1.9	1.1	0.8	1.0	6.60

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YER023W	1.77	1.4	1.5	1.6	1.2	0.7	1.2	0.8	2.1	0.6	1.1	0.9	0.7	1.3	0.8	1.2	1.2	0.6	0.8
YFL055W	0.23	1.0	1.4	1.4	0.7	1.5	1.3	0.9	2.7	6.5	23.9	1.3	1.4	1.1	1.5	2.5	1.3	6.7	2.0
YIL124W	2.39	2.1	1.2	3.1	0.6	1.1	0.9	1.1	2.8	0.7	1.0	0.9	1.3	1.2	0.9	1.6	2.8	0.8	0.9
YMR318C	3.17	1.1	1.1	1.1	1.5	1.7	1.8	0.8	3.6	4.8	2.3	3.6	0.8	2.1	1.2	0.7	2.2	2.4	1.4
YBR067C	1.76	0.4	0.5	2.5	3.3	0.7	0.9	1.0	3.1	1.0	1.7	1.1	1.1	1.1	1.1	0.9	2.8	2.5	1.6
YBR115C	0.64	0.6	0.6	0.5	1.1	0.7	2.3	0.9	1.8	1.6	0.8	1.3	1.1	0.9	0.7	0.4	1.4	0.7	0.6
YDL131W	1.81	0.6	0.7	0.9	1.1	0.9	1.0	1.2	2.2	2.7	0.8	2.2	0.7	0.9	1.0	1.0	1.8	0.9	1.1
YDL168W	1.08	0.8	0.9	1.1	1.2	1.6	1.3	0.6	1.9	4.7	8.2	1.7	1.1	1.4	1.2	0.9	2.1	2.0	2.3
YDR216W	0.44	1.8	1.0	1.6	2.5	0.9	2.4	1.0	2.1	2.7	2.5	1.0	1.0	1.3	0.8	2.6	2.0	1.1	1.3
YDR253C	0.38	1.0	1.0	1.6	1.2	3.6	2.2	1.0	2.3	6.3	14.8	1.7	1.0	0.8	0.9	3.2	1.4	6.4	5.7
YDR513W	3.10	3.2	1.3	3.8	1.3	2.0	1.8	0.9	2.0	3.1	4.6	1.6	1.6	2.1	0.9	2.6	2.3	2.5	2.2
YER061C	0.84	1.2	1.2	1.8	0.8	1.0	0.9	0.7	2.2	0.7	0.3	0.7	0.9	0.4	0.8	2.5	1.2	0.9	0.9
YFL052W	0.32	0.9	1.1	1.0	0.4	1.6	1.0	0.8	2.3	1.2	0.6	1.3	1.4	2.1	1.5	2.3	0.7	0.8	1.3
YFL058W	0.40	0.9	1.1	0.7	1.7	1.0	1.2	1.2	2.4	2.4	3.2	1.7	0.9	2.0	1.1	1.4	1.1	1.7	1.2
YFR030W	0.30	0.9	1.3	1.6	1.7	1.3	4.1	2.4	2.4	9.0	24.1	1.7	1.1	1.8	0.8	0.5	8.5	5.5	3.1
YGL202W	1.70	0.9	1.3	0.6	2.2	0.8	1.1	0.9	2.4	1.7	1.3	1.0	0.6	0.7	0.7	0.7	2.2	0.7	0.8
YGR070W	0.40	1.3	1.2	2.3	2.6	1.0	1.4	0.6	1.8	1.5	1.1	1.8	1.4		1.4	1.5	2.0	1.0	1.1
YHL036W	0.60	1.0	1.0	1.1	0.9	1.2	1.5	1.2	2.3	4.4	9.0	1.2	1.0	1.3	1.3	2.0	3.4	4.8	2.2
YHR104W	1.57	1.9	1.9	1.3	1.6	1.5	1.2	1.0	2.6	2.3	4.8	1.1	1.5	1.2	1.1	1.9	15.7	4.1	1.0
YJL045W	0.42	0.9	0.9	2.4	3.4	1.2	1.6	1.1	2.3	1.6	9.7	0.9	0.7	0.6	0.7	5.3	1.6	2.2	1.8
YJL060W	0.95	1.1	1.2	1.5	1.4	1.7	2.1	1.5	1.6	2.8	5.3	0.8	1.3	1.3	1.4	1.0	9.6	2.6	1.8
YJL155C	0.60	3.1	1.8	2.3	1.2	1.2	6.6	1.0	2.4	2.8	3.8	1.5	2.0	0.8	0.8	2.4	0.8	5.0	2.1
YJR109C	0.84	0.6	1.1	0.5	1.3	0.9	3.1	1.4	1.5	4.3	1.8	1.0	0.8	0.9	0.7	0.9	1.4	0.7	0.8
YJR156C	0.24	1.1	0.8	2.3	3.0	2.4	1.6	1.1	3.0	2.8	3.4	1.5	1.3	0.9	0.9	1.8	2.4	3.2	1.6
YLR092W	0.24	1.1	1.0	1.2	0.9	1.4	1.8	1.0	3.1	5.8	12.7	1.5	1.3	1.0	1.3	0.6	1.4	7.5	5.0
YMR081C	0.62	3.0	1.9	3.0	0.2	1.8	0.7	1.1	2.5	2.2	0.3	1.7	0.9	1.1	1.7	5.8	2.0	1.4	3.5
YMR250W	0.84	3.0	1.2	5.0	2.0	1.1	2.6	1.2	4.3	2.4	6.1	0.9	3.0	4.5	0.6	1.3	5.6	5.1	0.9
YNL277W	0.27	0.7	0.9	1.3	0.6	1.5	1.8	1.3	3.2	10.9	55.0	2.2	1.4	1.7	1.1	0.6	5.3	10.3	5.7
YOR184W	3.19	1.2	1.2	0.9	1.0	0.7	0.6	0.7	2.7	0.7	0.9	0.7	1.2	0.6	1.0	2.1	2.1	0.9	1.1
YPR160W	1.42	2.9	1.0	5.3	1.4	1.1	2.2	2.1	4.4	1.3	0.9	0.9	1.8	4.5	0.7	3.3	3.6	3.8	1.4
YDL182W	2.31	0.6	0.6	1.1	0.7	0.8	1.5	1.4	2.0	2.4	0.8	2.9	1.0	1.0	1.3	0.8	1.3	0.7	0.8

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YBR291C	1.19	1.3	0.9	1.5	0.5	1.7	1.0	0.9	1.1	1.0	0.9	2.2	0.9	1.1	0.9	1.5	1.0	0.9	2.0
YIL094C	2.26	1.0	0.9	0.9	0.5	1.0	0.7	1.0	1.8	0.4	0.3	3.6	1.3	1.2	1.4	0.7	0.8	0.4	1.5
YNR050C	2.13	0.7	0.6	1.4	0.3	0.6	1.1	1.0	1.5	0.7	0.4	2.2	1.0	0.9	1.3	0.6	1.2	0.5	1.7
YDL244W	0.25	1.0	1.1	1.5	2.9	2.0	2.0	1.2	1.2	3.7	2.5	1.8	1.7	1.3	0.9	1.6	1.8	3.5	1.1
YDR054C	1.18	1.4	0.8	1.4	1.6	1.1	2.5	1.0	1.9	3.2	2.9	1.5	1.1	1.0	0.7	1.4	0.7	1.0	1.3
YDR353W	3.20	1.3	0.9	1.0	1.3	1.6	0.7	0.8	1.4	5.1	2.0	1.1	1.0	0.9	0.6	1.6	3.4	1.6	0.9
YEL070W	0.27	1.0	0.9	1.9	3.2	2.1	1.1	1.1	1.1	13.0	1.9	1.2	1.3	1.2	1.3	3.4	1.6	0.9	1.4
YIL168W	0.39	1.1	1.0	1.2	1.2	1.5	0.9	0.8	1.9	19.3	7.8	1.6	1.3	0.7	1.4	1.2	1.0	1.4	2.8
YJL221C	0.41	1.4	1.1	3.3	1.1	1.1	1.4	1.1	0.8	4.4	2.7	1.8	2.5	6.6	0.9	1.3	1.1	1.0	1.1
YJR095W	0.23	0.9	1.3	0.8	0.8	1.3	0.8	0.7	0.6	6.3	0.5	0.9	2.0	1.5	1.2	6.7	1.9	20.5	1.2
YKL085W	2.16	1.3	0.9	1.7	0.5	1.0	1.5	0.8	1.8	3.0	1.9	1.2	1.5	1.9	1.2	1.2	1.6	2.3	1.4
YKL188C	0.27	1.5	1.1	2.7	1.4	2.1	1.2	1.2	1.1	2.8	2.5	0.7	1.1	0.8	1.0	2.4	1.9	0.7	1.3
YKL217W	0.29	3.3	1.7	3.0	2.2	1.2	1.2	0.8	1.6	4.1	0.9	1.1	1.6	1.2	1.1	2.1	1.0	2.4	1.8
YKR061W	0.70	1.6	1.5	0.8	0.9	1.6	0.9	0.9	1.1	2.6	1.5	1.5	1.4	1.2	1.2	1.9	0.5	2.1	2.0
YLR174W	0.41	1.2	0.9	4.6	0.8	1.7	1.8	1.3	1.3	8.3	2.5	1.1	1.6	0.9	0.9	2.1	1.7	0.9	1.2
YLR260W	0.44	1.2	1.1	1.0	1.0	1.2	1.9	0.8	0.6	3.2	2.6	1.2	1.2	1.0	1.2	2.4	1.5	1.5	1.1
YNL009W	0.45	2.3	1.2	3.3	2.7	1.3	1.3	0.9	1.3	3.3	1.4	1.1	1.2	1.1	1.4	1.4	2.0	1.5	1.1
YNL117W	0.24	0.9	1.1	1.6	2.6	2.0	1.3	0.7	1.4	4.4	12.8	1.7	1.1		0.8	0.8	1.7	1.9	0.9
YNL183C	0.47	1.0	0.8	1.2	1.1	1.1	2.3	1.1	1.3	4.3	4.8	0.9	1.3	1.2	0.7	1.3	6.4	4.7	0.9
YNR073C	0.18	0.9	1.0	1.6	1.7	2.3	1.2	1.1	2.2	16.8	2.5	1.5	2.2	1.7	1.4	2.7	0.8	3.5	1.1
YPL161C	0.41	1.3	1.3	1.4	0.8	1.1	1.2	1.0	1.0	2.7	1.2	1.8	1.3	0.7	0.8	1.1	1.1	1.4	1.0
YAL061W	0.88	1.2	1.4	1.1	0.6	0.7	1.4	1.1	4.1	1.4	5.5	0.8	2.0	1.0	1.0	3.8	3.3	1.7	1.7
YAL067C	0.33	1.0	1.0	1.6	2.4	1.3	1.1	1.0	1.2	2.9	7.6	1.1	0.8	1.2	0.7	1.4	1.5	2.4	2.7
YBL033C	0.53	1.0	1.2	1.2	1.0	1.4	1.8	0.9	1.1	4.2	6.6	1.4	0.9	0.4	1.1	1.0	2.4	7.5	1.3
YBL086C	0.43	1.0	0.9	1.4	0.5	0.8	0.9	0.5	1.3	1.4	3.3	1.1	1.0	0.7	1.3	0.6	1.0	1.9	0.8
YBR117C	0.49	0.7	0.7	12.0	1.0	0.9	2.1	0.8	0.4	1.5	5.9	0.7	1.0	2.3	0.9	1.4	1.5	0.5	0.8
YBR213W	0.23	0.9	0.9	0.8	1.7	1.3	1.4	1.2	0.5	2.3	11.4	1.3	1.3	2.4	1.1	0.5	1.0	1.6	1.0
YCR036W	1.35	1.7	1.6	1.6	1.7	1.5	1.8	1.3	1.0	1.5	2.6	1.1	1.5	1.4	1.5	1.3	1.3	1.6	1.3
YDL132W	0.74	1.1	0.9	1.0	1.7	0.9	2.0	0.7	1.3	2.4	3.8	1.0	1.4	0.9	1.3	0.7	1.1	1.2	0.8
YER014W	0.43	0.9	1.0	0.8	2.3	1.2	1.5	1.1	0.9	1.1	3.5	1.2		4.0	0.8	0.6	0.9	1.2	1.0
YER042W	1.80	1.1	0.7	1.9	1.0	5.2	1.4	1.1	1.8	2.1	6.8	1.7	1.1	1.6	1.1	1.0	3.1	2.2	3.0

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YER090W	0.97	0.9	1.1	0.8	1.5	1.2	1.2	1.3	1.8	2.5	3.7	1.4	0.9	0.7	1.3	0.7	2.0	1.1	1.0
YGL026C	0.87	0.8	1.5	0.7	2.4	0.9	1.8	1.3	3.4	1.5	3.7	0.8	0.9	1.7	1.2	0.6	1.9	9.3	0.7
YGL252C	0.91	1.3	1.0	1.2	1.3	1.0	1.2	0.9	0.9	1.7	2.7	1.2	1.4	0.8	1.3	0.7	1.4	2.4	1.1
YGL254W	0.53	1.2	0.8	1.4	1.1	1.3	2.4	1.2	1.1	1.8	3.1	1.4	1.3	0.7	1.1	0.6	0.8	1.1	1.2
YGR276C	0.97	1.1	0.9	1.3	0.8	1.0	1.8	1.0	0.9	2.2	4.5	1.5	1.9	0.7	1.5	1.3	0.3	0.8	0.9
YHR106W	1.73	1.1	1.3	2.4	0.9	1.2	1.0	0.7	1.4	2.5	2.8	1.0	1.2	1.3	1.7	1.5	1.7	1.7	0.9
YIL046W	0.68	5.8	9.0	1.8	1.3	1.1	1.7	1.0	1.2	2.5	10.7	1.0	1.0	0.9	1.4	0.7	1.6	2.7	1.5
YJL071W	0.41	0.9	0.9	1.2	1.5	1.0	1.0	1.1	1.3	2.2	2.8	1.1	1.3	1.0	1.4	1.6	1.3	1.5	1.0
YJR139C	4.47	1.3	1.0	1.2	0.7	1.4	1.5	1.0	1.5	1.9	4.1	1.1	1.3	1.8	1.2	1.1	2.9	2.6	1.4
YKR069W	0.25	1.0	1.0	1.8	1.1	1.7	1.4	1.4	2.0	9.0	10.9	1.2	1.0	0.5	0.7	3.1	5.0	6.3	3.4
YLL061W	0.33	0.7	0.6	1.0	1.4	1.3	0.9	0.7	1.7	5.5	3.7	1.4	0.9	0.8	0.8	0.4	9.2	2.8	3.6
YLR070C	0.31	0.9	1.0	2.1	0.5	1.3	2.0	0.7	0.4	1.6	3.5	1.0	1.3	1.1	0.7	1.1	1.4	1.3	1.0
YLR099C	0.92	0.5	0.7	0.7	0.9	0.7	0.8	0.9	1.2	1.1	3.6	1.2	0.2	0.4	0.9	0.8	1.4	2.2	2.0
YLR157C	1.70	2.1	1.6	2.1	1.1	1.1	1.8	1.2	1.9	1.8	5.1	1.5	1.9	1.9	1.3	1.1	3.4	1.1	1.1
YLR160C	1.59	2.2	1.6	2.0	1.0	1.2	2.0	1.2	1.6	1.8	4.8	2.0	1.9	1.8	1.3	1.1	3.9	1.4	1.2
YLR164W	0.31	1.2	1.5	11.0	0.7	1.5	1.0	0.7	3.2	2.0	5.3	1.2	1.1	1.2	1.2	1.0	0.3	2.4	1.0
YML042W	0.29	0.9	1.0	4.8	1.7	1.4	1.2	1.0	2.5	2.4	3.8	1.6	0.8	0.9	1.0	2.2	1.5	1.4	0.9
YOL049W	1.61	1.3	1.0	1.3	0.7	0.9	0.9	0.8	1.8	1.9	3.0	1.0	1.1	0.6	1.4	0.9	1.3	1.1	0.9
YOL064C	1.32	1.3	1.2	1.7	1.0	0.9	2.0	0.9	1.0	2.7	8.7	1.0	1.2	1.4	0.9	0.6	1.1	2.1	1.4
YOR377W	0.46	1.1	1.1	1.3	1.2	0.9	1.3	0.9	1.2	1.1	3.8	1.0	1.6	1.6	1.4	1.0	0.6	0.6	0.6
YPL031C	0.49	1.2	1.4	2.0	0.7	0.9	1.6	0.8	1.4	1.4	5.7	1.0	1.6	1.8	1.5	0.8	1.4	2.0	0.9
YPL113C	0.28	1.7	1.2	2.5	0.9	1.6	1.7	1.1	1.5	2.0	5.5	1.4	1.9	1.0	1.3	2.4	0.4	1.7	1.4
YPL274W	0.41	0.6	0.7	1.1	1.5	0.9	0.6	0.5	2.0	3.6	4.1	0.9	0.7	1.1	0.6	0.8	3.8	4.2	0.8
YPR048W	0.75	0.8	0.7	0.8	0.6	1.2	0.6	0.8	1.0	2.1	4.0	1.5	0.9	0.6	0.9	1.1	0.9	2.0	1.3
YBR001C	0.61	1.6	1.0	1.4	1.8	1.2	2.0	1.0	1.0	2.1	2.3	1.3	0.9	1.1	0.9	1.4	1.1	1.4	0.9
YBR018C	0.20	0.9	0.8	6.2	1.3	2.4	1.0	1.0	5.8	1.7	1.3	0.6	1.4	0.7	0.9	2.9	1.9	1.1	0.9
YBR204C	0.84	1.5	1.1	2.3	1.2	1.4	1.7	1.0	2.2	1.9	1.8	1.1	1.7	0.9	1.1	1.8	1.5	1.0	1.0
YBR241C	1.25	1.2	1.0	0.7	1.6	0.9	1.4	1.4	1.4	2.2	29.8	0.7	1.4	1.5	0.9	0.9	2.6	9.3	0.9
YCR105W	0.36	1.1	1.3	1.3	3.1	1.9	1.9	0.9	2.3	3.9	2.0	1.4	1.0	1.0	0.9	3.0	1.2	1.2	2.2
YDR287W	0.52	1.3	1.5	2.7	1.6	1.2	1.5	1.1	1.5	1.8	2.5	1.2	1.2	1.6	1.2	1.2	1.9	8.4	1.1
YDR294C	1.02	1.1	0.9	1.7	2.0	1.0	1.6	1.1	1.2	2.9	2.0	1.0	1.0	0.7	0.9	1.2	1.9	1.1	0.7

Gene	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
YER052C	1.1	1.0	3.6	1.1	0.6	0.6	0.5	1.0	2.7	2.4	1.1	0.9	2.1	0.7	1.2	0.2	0.8	0.4	1.54
YFL021W	0.8	1.4	2.4	1.7	1.1	0.8	0.8	0.6	2.7	1.2	1.3	0.9	1.5	1.1	1.3	1.0	0.8	0.5	0.40
YGL040C	0.7	1.2	1.4	0.9	1.3	2.0	1.1	1.0	2.1	1.9	0.9	0.6	1.6	1.3	0.7	1.5	0.7	1.0	1.77
YGL125W	1.0	3.2	4.3	0.7	0.9		1.7	0.8	2.1	2.1	1.6	1.0	1.4	1.0	1.9	1.2	1.2	1.1	0.27
YGR007W	1.3	1.7	0.7	1.6	0.6	0.8	1.2	1.1	2.2	2.3	0.9	0.8	1.4	1.8	1.9	1.3	1.1	1.4	0.74
YGR155W	1.3	4.4	1.2	0.6	1.3	1.6	1.1	1.4	2.4	1.7	1.3	1.0	1.4	0.7	0.5	1.0	0.5	0.6	4.15
YIL099W	0.9	1.6	1.5	0.4	0.8		101.4	1.0	2.2	1.8	0.9	0.9	1.4	1.6	5.5	1.2	1.0	1.1	0.18
YIL170W	1.1	1.0	2.5	2.2	0.9	8.8	0.5	1.2	5.7	3.2	1.7	0.7	1.9	1.1	2.3	1.8	1.6	1.5	0.48
YIR031C	0.8	1.6	0.6	0.6	1.6	1.7	1.4	1.0	2.6	1.0	1.2	0.8	1.0	1.2	0.8	0.7	0.9	0.8	0.44
YIR032C	1.1	1.9	1.3	2.6	1.0	0.6	1.0	1.2	2.6	2.3	1.4	1.0	1.4	1.6	0.6	1.6	0.9	1.1	0.40
YJL128C	0.8	1.4	0.4	0.8	1.2	1.3	1.8	0.9	2.0	1.7	0.6	1.0	1.7	0.8	1.2	0.9	1.0	1.0	0.42
YJR090C	0.8	1.0	0.6	0.8	1.2	1.2	0.8	0.8	1.9	1.2	0.4	0.8	2.2	1.0	1.6	0.8	1.1	1.0	0.60
YJR103W	1.1	3.8	1.2	1.6	0.7	0.6	0.6	0.8	1.8	3.0	1.1	0.6	0.7	0.7	3.2	2.3	0.9	1.0	0.74
YJR153W	1.1	1.7	1.1	0.8	0.9	0.4	1.3	0.9	2.4	1.6	2.0	0.7	1.3	1.7	2.9	1.6	0.8	1.0	0.18
YKL192C	1.1	1.0	3.7	1.1	1.1	1.8	1.1	0.9	3.5	1.6	1.1	1.2	1.7	1.5	1.2	2.1	1.0	0.8	1.57
YLR025W	1.2	5.1	0.7	1.1	1.9	1.5	1.7	1.5	2.4	1.5	1.1	0.9	1.0	1.7	1.5	2.2	1.2	1.3	1.15
YML051W	1.0	1.4	1.8	0.9	1.0	0.7	0.9	0.9	2.0	1.5	1.4	0.7	1.2	1.1	1.4	1.1	0.7	1.0	0.57
YML099C	0.6	1.0	1.1	1.3	1.0	0.5	1.0	0.7	2.2	1.7	1.6	1.1	1.3	0.9	1.0	1.6	0.7	0.8	0.48
YMR056C	1.1	1.3	1.7	1.0	1.1	0.9	1.4	1.2	1.8	1.1	1.6	0.9	0.9	1.1	0.7	2.4	1.0	1.1	0.72
YNL257C	0.7	1.0	0.9	0.8	0.9	2.0	1.1	1.1	2.1	1.4	1.0	1.1	1.7	0.8	1.0	1.4	0.9	1.3	0.63
YNL264C	1.0	2.4	1.3	1.0	0.8	1.4	1.5	1.1	3.3	1.3	1.0	1.1	1.5	1.2	1.1	1.3	0.7	1.1	0.48
YNR071C	1.4	1.0	0.9	3.2	1.1	0.9	1.4	1.2	3.1	7.0	1.3	0.6	1.7	1.1	1.8	1.0	1.0	0.9	0.16
YOL065C	1.0	1.7	1.6	1.3	0.8	1.3	1.9	1.0	2.1	1.8	1.0	0.8	1.3	1.1	0.7	2.6	1.1	1.5	0.43
YOL067C	0.8	0.9	0.9	1.4	0.7	0.3	0.7	1.0	2.1	1.3	1.3	0.7	1.7	0.7	1.2	1.1	1.4	0.9	0.55
YPL147W	1.0	0.8	2.3	1.2	1.2	1.1	1.0	0.9	2.4	2.4	1.0	0.9	1.5	1.0	2.4	2.5	1.5	3.6	0.33
YDR043C	0.8	1.1	1.2	6.9	1.7	1.4	1.3	1.2	1.0	2.7	1.3	0.9	0.7	1.8	1.2	1.4	1.9	1.2	0.66
YGR180C	1.0	1.1	1.9	1.0	2.0	0.6	0.5	1.0	1.4	1.5	1.0	0.9	0.9	0.9	1.3	1.2	1.0	1.9	3.90
YJL026W	2.8	2.4	2.9	1.0	1.7	1.4	0.5	1.2	1.0	1.1	1.3	1.0	1.2	1.0	1.1	1.6	1.4	2.1	3.74
YGR087C	3.1	15.0	1.7	0.6	1.0	1.1	1.0	0.8	0.2	0.9	0.8	1.2	1.2	0.7	3.5	0.6	1.0	0.6	1.88
YGL256W	2.5	5.3	1.1	1.3	0.7	0.7	0.5	1.0	0.4	1.2	1.0	0.9	0.8	0.9	1.0	0.7	0.7	0.8	0.90
YAL039C	1.1	2.2	1.7	1.0	1.1	0.8	1.0	1.2	1.6	2.2	1.1	1.4	1.6	1.2	3.3	2.2	1.4	1.1	0.39

Gene																			
YJR107W	1.0	3.1	1.5	1.8	0.7	1.5	1.3	1.3	1.4	0.9	1.3	1.1	1.7	1.4	1.1	1.1	1.4	1.3	0.41
YNL142W	0.7	2.4	2.5	0.8	1.3	0.9	1.1	0.8	0.9	0.6	0.9	1.2	0.9	0.8	0.3	1.0	1.0	0.9	0.44
YDL210W	1.2	2.2	2.7	1.1	0.9	1.3	0.8	1.1	1.2	1.4	0.6	0.8	1.2	1.1	1.9	0.9	1.1	0.9	0.20
YGL055W	1.1	1.8	0.3	2.5	1.5	1.6	0.6	1.4	0.2	0.7	0.9	1.3	0.2	0.7	0.5	3.0	1.0	1.5	5.60
YCL025C	1.1	4.6	2.5	1.7	0.9	0.9	0.7	0.7	0.3	0.3	1.0	1.1	0.5	0.7	0.8	0.6	0.6	0.6	1.98
YBR132C	0.9	1.9	2.4	1.8	0.8	1.2	1.1	0.8	0.8	1.1	1.9	1.0	1.4	1.1	1.5	1.3	1.1	1.3	0.43
YHL018W	0.8	1.5	0.5	0.5	0.9	0.4	1.2	0.8	0.8	0.6	1.2	0.7	0.8	1.0	0.9	0.9	1.0	0.9	0.37
YPL038W	0.8	1.5	0.2	1.1	1.4	0.5	1.0	1.2	0.9	0.7	1.1	0.6	0.6	0.9	0.6	0.8	0.9	0.9	0.64
YKR053C	0.9	2.0	1.0	1.2	1.0	1.1	1.7	0.9	0.8	1.8	0.5	0.7	0.7	1.3	0.3	0.9	2.8	2.4	0.35
YNL256W	0.7	1.6	0.6	0.6	1.0	0.5	0.6	0.9	0.8	0.6	0.6	0.6	1.3	0.7	0.9	0.4	0.6	0.6	1.09
YLR377C	1.1	2.6	1.8	1.2	1.0	0.7	0.9	0.7	1.8	1.6	0.6	0.6	1.2	2.9	0.8	2.7	0.9	1.4	0.14
YBR253W	1.3	4.4	0.4	1.1	1.4	1.3	1.4	1.8	1.8	1.5	1.1	1.0	0.8	1.2	0.9	1.3	1.3	1.1	0.96
YBL030C	1.0	0.9	4.5	0.9	0.7	1.1	0.9	0.8	0.4	0.9	1.1	0.9	0.5	0.8	1.8	1.0	1.0	1.1	3.12
YBR221C	0.8	0.7	3.2	1.5	1.3	1.7	1.5	0.8	1.0	1.3	1.2	1.3	1.7	0.8	1.1	1.5	0.9	1.0	3.62
YDR342C	2.8	1.1	12.2	5.7	1.6	1.1	0.8	1.2	0.2	2.2	2.9	1.0	0.6	0.9	0.5	2.4	1.0	2.2	5.23
YDR343C	1.2	1.0	20.6	4.6	1.3	1.3	0.7	1.2	0.3	2.1	2.3	1.0	0.8	0.8	0.5	2.8	1.1	2.3	5.81
YEL034W	0.9	0.6	3.3	0.9	1.4	0.9	0.4	0.9	0.8	1.0	1.1	0.9	0.8	0.9	0.8	0.9	0.9	0.9	5.44
YHR094C	0.7	1.2	5.3	1.6	1.1	1.6	0.8	1.2	0.3	1.2	0.6	0.9	0.7	0.6	2.7	0.9	1.4	1.4	4.82
YIL162W	1.3	1.5	6.8	2.4	1.2	1.0	1.2	1.6	0.8	3.7	2.8	2.0	1.0	1.0	1.5	1.7	0.9	1.4	1.22
YJR105W	0.6	0.7	3.0	0.8	0.7	0.3	0.5	0.8	0.9	0.5	1.0	0.8	0.8	0.5	1.2	0.7	1.1	0.9	3.75
YLR134W	0.8	0.6	2.3	0.8	1.3	2.5	1.1	0.8	0.1	0.7	1.1	1.2	1.5	0.6	1.7	0.5	0.6	0.8	3.47
YLR258W	1.5	1.0	4.2	3.5	0.9	1.8	1.8	0.9	0.8	1.3	1.2	0.9	1.4	1.2	0.6	1.7	1.0	2.0	1.36
YML058W	1.9	1.2	5.8	1.9	0.6	0.6	0.6	0.7	1.1	1.2	3.3	0.9	1.4	1.1	2.5	1.3	1.3	1.5	2.14
YMR083W	1.4	1.7	2.6	1.1	1.5	1.8	1.7	1.1	0.4	1.1	1.6	0.7	0.9	0.8	1.3	1.3	0.9	1.1	2.52
YOR178C	1.4	1.3	4.8	2.3	1.0	2.7	0.9	0.9	0.2	1.7	4.1	1.7	1.0	1.0	1.1	1.7	1.0	1.5	0.56
YPL028W	0.7	0.9	2.6	0.9	1.0	1.2	1.3	0.9	1.2	0.8	1.2	1.4	0.9	0.8	0.6	2.2	1.4	1.8	4.35
YPR113W	1.1	0.8	3.7	1.3	2.0	1.1	1.2	0.9	0.4	0.8	2.0	0.7	0.7	1.3	1.0	2.3	1.2	1.9	2.85
YPR183W	0.9	1.5	3.5	0.8	0.9	1.2	1.2	1.0	0.9	0.6	2.5	1.2	1.6	0.7	0.9	0.8	1.2	1.0	1.17
YBR011C	1.3	1.8	2.5	1.1	0.9	2.0	1.1	1.3	2.2	1.0	1.7	1.1	1.5	0.9	2.1	1.7	1.2	1.1	3.68
YCR034W	0.8	0.4	2.5	0.9	0.9	0.3	0.3	0.9	0.1	0.2	0.8	0.5	0.2	0.6	0.9	0.3	0.9	0.7	3.77
YDR050C	1.6	1.3	2.3	1.8	0.9	1.7	1.5	1.3	0.4	1.3	2.0	1.4	2.0	1.2	1.9	1.3	1.1	2.3	6.26

Name																			
YDR178W	2.0	2.0	3.4	2.2	0.9	2.1	0.6	0.9	0.9	0.8	2.0	1.3	1.5	1.5	0.7	3.0	1.2	2.3	2.27
YDR284C	0.8	1.5	3.0	2.9	0.8	1.8	1.4	0.9	0.9	1.0	1.3	0.9	1.2	1.3	0.9	1.7	1.5	1.5	1.44
YDR345C	0.8	0.9	5.6	2.6	1.3	1.2	1.1	1.2	0.2	1.1	1.5	1.4	1.2	0.8	0.8	1.0	1.3	1.8	5.65
YDR400W	1.0	2.0	2.2	0.7	1.0	1.1	0.6	1.4	1.1	1.4	1.3	0.4	0.7	0.9	0.8	1.1	1.1	0.8	0.56
YEL063C	0.7	0.8	2.4	1.3	1.2	1.3	0.7	0.6	0.8	1.7	0.8	1.1	1.1	0.8	1.3	1.0	0.7	0.7	1.12
YER081W	1.6	1.9	2.7	1.4	1.1	1.1	0.5	0.6	1.8	1.1	1.1	1.0	0.6	1.6	0.5	0.8	1.1	1.7	2.31
YER120W	0.9	1.1	2.5	0.8	0.8	1.5	0.9	0.6	0.8	0.9	1.1	1.3	1.0	0.9	1.5	1.0	1.2	1.0	1.52
YFL011W	1.2	0.7	3.7	3.3	1.3	1.0	0.8	0.8	0.3	1.6	2.1	0.9	0.8	0.8	1.7	1.2	0.8	1.0	1.25
YGL012W	1.0	0.8	3.0	1.2	1.5	1.6	0.9	0.8	0.3	0.9	0.6	0.6	0.3	0.8	0.6	1.2	0.9	1.1	4.88
YGR191W	0.8	0.7	1.6	1.5	0.8	1.1	0.7	0.8	0.1	0.7	1.6	0.7	1.0	0.7	1.5	1.2	0.8	0.8	1.58
YGR204W	0.5	1.1	2.7	1.3	0.6	0.6	0.8	0.4	0.9	2.3	2.1	1.0	1.3	0.5	1.6	1.2	1.0	0.7	1.49
YHR025W	0.6	0.8	2.4	0.6	0.9	0.8	0.8	0.8	0.2	0.4	2.1	0.9	0.7	0.6	2.1	0.5	1.0	0.6	0.68
YHR123W	0.7	1.2	1.8	1.0		1.0	0.9	0.8	0.8	1.1	1.2	0.7	1.5	0.8	2.3	0.5	1.1	1.0	0.85
YJL121C	1.0	0.5	1.9	0.8	1.0	1.1	0.7	1.0	0.1	1.1	1.1	0.6	0.7	0.8	1.0	0.6	1.1	1.0	1.00
YJR077C	1.1	1.1	2.0	1.6	0.9	0.9	0.7	0.8	0.4	0.4	1.6	1.0	0.9	0.9	1.5	0.7	1.0	0.8	1.79
YJR143C	0.6	0.6	2.1	0.8	1.6	0.6	0.5	0.7	0.1	0.7	1.3	0.6	0.3	0.6	1.1	0.5	0.7	0.8	3.24
YKL060C	1.6	0.8	2.5	1.0	1.6	1.3	1.2	1.1	0.3	0.8	2.1	1.3	1.2	0.8	1.6	1.5	1.2	1.7	6.01
YKL148C	0.9	0.8	3.7	0.7	0.8	0.5	0.6	0.8	1.7	1.7	1.5	0.8	0.8	0.8	0.6	1.1	0.8	1.0	0.54
YKL157W	0.7	1.0	2.3	1.3	1.5	1.5	1.9	1.1	1.7	1.9	1.5	1.0	2.3	0.8	1.2	1.7	1.2	1.5	1.22
YLR044C	0.8	0.6	2.2	0.9	1.7	1.5	1.3	0.7	0.0	1.2	1.1	1.4	1.7	0.5	2.2	0.6	0.9	0.9	5.16
YLR056W	1.0	0.6	2.5	0.8	1.6	1.2	0.8	0.9	0.0	0.5	0.8	0.9	0.2	0.7	0.9	2.1	1.1	1.1	3.61
YLR058C	0.9	0.8	5.5	2.6	0.7	0.9	0.5	0.3	0.2	0.1	2.6	0.4	0.3	0.7	1.5	0.4	0.8	0.8	2.71
YLR081W	1.3	0.8	2.8	3.6	1.0	0.9	0.7	0.9	0.1	2.2	2.6	1.0	0.6	1.0	0.7	1.2	0.7	0.9	1.46
YLR089C	0.9	1.2	2.1	0.9	0.8	1.5	1.6	0.7	0.5	0.8	1.7	0.6	1.0	0.7	1.7	1.4	1.2	1.3	1.27
YLR284C	0.9	1.0	3.8	1.9	1.6	0.9	0.8	1.2	0.9	0.9	1.5	0.6	0.8	1.3	1.0	4.5	2.9	8.1	0.84
YLR304C	0.7	0.6	5.0	0.7	0.6	1.9	0.6	0.6	0.1	2.2	1.6	0.6	0.5	0.7	1.6	1.8	0.5	0.7	2.39
YLR354C	1.1	2.5	2.3	1.5	1.6	1.5	1.1	1.4	0.4	0.9	1.7	1.2	1.0	0.9	2.4	1.3	1.0	1.5	4.53
YLR372W	0.7	0.3	1.7	0.8	1.4	0.5	0.2	0.9	0.0	0.1	0.9	0.6	0.1	0.6	0.7	0.2	0.5	0.6	4.46
YML022W	0.9	0.6	2.0	1.1	1.3	0.8	0.6	1.1	0.3	0.6	1.2	0.6	0.2	0.9	0.6	0.6	0.5	0.7	4.93
YMR011W	1.3	1.0	9.4	5.5	0.9	0.6	0.8	1.1	0.0	0.7	1.5	0.8	0.4	0.6	0.6	1.2	1.3	1.6	4.95
YMR015C	0.7	0.7	1.9	0.9	1.7	1.3	0.4	0.7	0.1	0.3	1.0	0.9	0.4	0.8	1.2	1.5	1.0	1.0	2.51

YMR205C	0.5	0.7	2.3	0.8	1.2	1.2	0.9	0.7	0.3	0.8	1.0	1.1	1.3	0.5	0.9	0.9	0.6	0.5	4.75
YMR261C	0.7	1.6	3.6	0.8	0.9	0.6	1.3	0.7	1.6	1.3	0.8	0.9	1.6	0.6	0.8	1.6	0.7	1.1	0.78
YMR323W	0.8	1.1	2.9	1.1	0.7	0.4	1.1	0.8	0.5	1.3	2.5	1.2	1.8	1.2	37.3	0.6	1.1	0.6	1.04
YOL086C	1.1	0.5	2.2	1.1	1.9	1.7	1.9	0.8	0.1	1.2	2.6	1.3	1.7	0.6	1.6	1.4	1.1	1.3	4.19
YOL155W	1.1	0.7	2.5	1.1	1.2	1.2	1.0	1.0	2.3	2.1	1.1	0.9	1.7	0.9	1.9	0.9	0.9	0.9	0.53
YOR002W	0.8	1.1	1.9	0.9	1.1	1.1	1.0	0.9	0.8	0.9	1.2	0.5	0.6	0.9	1.5	0.8	0.9	1.1	1.49
YOR085W	0.7	0.8	1.9	1.0	1.0	0.6	0.6	0.7	0.5	0.6	1.1	0.8	1.0	0.7	1.8	0.8	0.9	0.9	1.86
YOR108W	0.8	0.9	2.3	0.6	1.1	1.6	1.2	0.9	0.4	1.1	1.4	0.7	1.3	0.9	0.7	1.0	1.1	1.1	1.07
YOR128C	0.9	0.7	2.1	2.1	1.1	1.0	0.7	0.6	0.3	0.4	0.8	0.5	0.4	0.7	1.6	0.5	1.2	1.2	2.14
YOR142W	1.0	1.2	3.4	1.0	1.4	1.6	1.2	0.8	1.1	1.5	1.5	0.8	1.4	0.8	1.1	0.8	0.9	1.0	1.31
YOR176W	0.7	2.6	2.7	0.9	1.0	0.9	0.7	1.0	1.0	0.5	1.4	1.3	1.5	0.8	0.8	1.4	0.9	2.1	1.23
YPL057C	1.9	1.1	3.2	3.1	1.9	0.6	1.0	1.0	0.4	1.4	1.6	1.0	1.3	0.7	1.1	2.5	2.2	2.0	2.08
YPL135W	0.9	1.2	2.5	1.2	1.6	1.3	0.5	1.0	0.5	2.8	1.3	1.1	1.2	1.1	1.5	1.2	1.5	1.7	1.50
YCR010C	1.6	1.6	1.6	4.2	1.7	1.3	0.6	0.8	0.9	4.7	1.6	0.8	1.0	1.2	1.2	2.8	1.9	1.5	0.26
YBR003W	0.9	0.8	1.0	1.9	0.7	1.2	1.1	0.9	1.0	1.3	1.3	0.8	1.2	0.8	0.7	2.0	1.1	1.3	1.06
YBR020W	1.0	0.5	1.9	1.9	1.0	0.8	0.7	1.0	-0.4	1.1	1.0	0.8	1.1	1.0	1.3	0.7	0.8	0.9	0.27
YDR123C	1.2	0.8	0.4	2.1	1.6	0.7	0.9	1.3	0.5	0.6	0.6	0.5	0.9	0.7	1.2	0.8	1.3	1.0	0.30
YDR277C	1.6	1.2	1.0	3.0	0.8	1.1	1.2	1.7	0.2	0.9	1.2	0.9	1.2	1.3	0.4	2.3	1.2	1.7	0.89
YDR408C	1.0	1.0	1.4	4.1	0.9	0.9	0.8	0.7	0.3	0.5	1.7	0.6	0.5	0.9	1.0	1.0	1.1	1.1	2.16
YDR483W	1.1	1.0	1.3	2.0	0.7	1.5	0.8	1.0	0.4	1.1	1.4	0.8	1.3	0.8	1.5	1.2	1.2	1.4	3.24
YGL115W	0.9	0.6	1.2	2.0	1.2	1.2	1.4	1.0	1.2	1.2	1.0	0.9	0.7	1.2	0.7	1.7	0.8	1.2	2.46
YGR096W	1.5	1.0	1.1	4.6	1.2	1.7	0.9	1.0	0.8	0.8	0.8	0.7	1.1	1.1	0.9	0.8	0.8	1.0	0.49
YGR288W	0.9	0.5	1.0	2.6	0.8		1.4	1.0	1.6	2.6	1.3	0.9	1.3	1.1	0.8	1.7	1.2	1.3	0.41
YHR210C	1.3	1.0	0.6	5.2	1.8	0.7	1.9	1.3	-0.1	0.9	1.5	0.5	0.4	1.0	0.5	1.5	1.4	1.2	0.33
YIL006W	1.0	1.1	1.4	2.9	0.8	0.3	0.8	0.6	0.9	1.1	1.0	0.9	0.8	1.0	1.5	1.7	0.8	0.9	0.28
YKR034W	0.9	1.5	1.1	4.7	0.9	0.9	0.7	1.5	0.5	0.6	0.0	0.7	1.2	1.1	1.7	0.6	0.8	1.0	0.26
YLR006C	0.7	0.7	0.9	6.2	1.6	0.9	1.1	0.9	1.1	1.1	1.5	0.7	0.8	1.0	0.9	0.8	1.6	1.0	0.40
YNL025C	0.9	1.4	1.4	12.8	0.7	0.5	1.2	1.0	1.1	1.8	1.1	0.8	1.3	1.2	1.4	2.9	0.7	1.3	0.37
YOL116W	1.1	1.0	0.9	2.8	1.7	0.7	1.5	1.3	0.6	1.8	1.0	0.6	0.8	0.9	0.7	1.9	1.1	1.4	0.47
YOR103C	1.1	0.8	1.3	1.8	1.5	1.0	1.2	1.0	0.8	0.9	1.0	1.2	0.8	1.2	1.4	1.3	1.1	1.5	2.84
YOR251C	1.1	1.0	1.3	1.8	0.8	0.9	1.0	1.1	0.8	0.8	1.0	0.9	1.0	1.1	0.6	1.2	0.9	1.3	1.34

Gene																			
YOR348C	1.1	0.7	1.2	2.0	0.9	0.7	0.8	0.8	0.5	0.4	1.1	0.7	1.1	1.2	1.6	1.7	0.9	0.9	0.18
YPL148C	1.2	0.8	0.9	2.3	1.1	0.6	0.9	1.0	0.7	1.5	3.5	0.7	0.6	1.6	0.6	1.6	1.0	1.1	0.48
YGL205W	0.9	0.9	0.7	0.8	1.1	1.6	1.2	0.8	0.5	0.6	0.4	1.1	1.0	1.0	2.0	4.1	3.9	9.1	0.24
YNL192W	1.1	1.2	1.5	1.6	0.9	0.6	0.8	1.0	0.6	1.8	1.1	1.1	2.7	0.7	2.1	0.8	2.3	2.8	1.31
YOL108C	1.4	1.5	0.4	1.9	2.1	0.9	1.3	1.1	1.6	0.9	1.1	1.0	1.3	0.9	1.5	1.8	1.5	2.7	0.87
YPR165W	1.3	0.7	1.6	1.0	1.5	1.8	1.0	1.0	0.9	0.7	1.0	0.8	1.0	1.0	0.9	1.0	2.3	2.7	3.64
YDR073W	1.7	0.9	0.7	1.4	1.2	1.3	1.3	1.2	0.5	1.2	1.0	0.8	0.6	1.2	0.8	1.6	1.8	2.3	1.27
YER015W	0.7	0.9	1.1	1.5	1.3	0.9	1.1	1.2	0.4	0.9	1.0	0.9	0.8	1.1	0.8	3.0	1.6	2.6	0.41
YJL167W	0.9	1.4	1.4	1.1	0.7	1.3	1.5	1.2	0.9	0.9	1.2	1.3	0.9	0.9	1.6	1.4	1.4	2.1	2.94
YJL216C	0.8	4.7	2.2	0.9	0.8		1.9	1.5	1.5	1.3	1.1	1.0	1.1	1.1	1.2	1.5	1.2	2.0	0.25
YKR009C	1.0	1.2	1.5	0.9	1.0	1.8	0.9	1.5	2.4	2.1	1.2	1.0	1.8	1.0	1.0	4.6	1.9	2.5	0.27
YOR180C	0.8	1.1	1.0	1.0	1.0	0.7	0.9	1.0	0.3	0.4	0.6	0.8	0.9	1.0	1.1	2.4	0.9	2.3	0.55
YBR036C	0.8	1.7	1.8	1.2	1.2	1.3	0.9	0.8	1.0	1.0	1.5	1.0	1.9	0.8	1.5	1.6	2.1	1.8	2.05
YDR297W	1.5	0.8	0.8	1.1	0.9	1.4	0.9	1.3	0.3	0.7	1.4	1.0	0.8	0.9	1.4	1.4	1.9	1.9	1.73
YDR387C	0.8	0.9	1.2	2.2	0.9	1.2	1.0	0.7	1.4	2.0	2.0	0.9	1.3	0.9	1.4	2.7	1.2	1.1	0.86
YOL096C	1.1	1.0	1.2	1.6	1.2	1.3	1.2	1.0	1.3	1.4	1.2	1.2	1.4	1.4	1.0	2.3	1.2	1.2	0.64
YPR184W	1.2	1.4	5.7	2.2	0.9	1.5	0.9	0.7	1.9	3.2	3.6	1.4	2.5	1.3	1.5	3.1	1.0	1.7	0.37
YBR298C	1.1	1.0	1.6	2.3	1.4	0.4	1.4	0.5	0.3	1.1	1.5	1.1	0.8	0.9	0.2	2.1	0.9	0.8	0.88
YDL078C	0.7	1.1	1.2	0.8	1.3	1.1	1.3	1.0	1.1	1.0	1.7	0.8	1.0	0.8	0.5	2.2	1.1	2.0	1.65
YDL215C	1.0	1.5	1.0	1.6	1.5	0.9	1.7	1.1	1.7	2.4	0.8	0.8	1.5	1.0	1.1	2.2	1.1	1.6	0.91
YGL035C	0.7	1.4	4.3	1.4	1.1	0.6	0.9	1.3	0.9	1.5	1.3	0.9	1.1	1.1	1.0	2.3	0.9	1.2	0.61
YGR287C	1.3	1.0	1.3	1.5	0.8	0.8	2.6	1.3	2.6	4.2	1.5	1.1	1.7	1.1	2.3	3.0	1.0	1.1	0.38
YJL070C	1.3	0.9	1.1	1.2	1.3	2.0	1.0	1.1	1.0	1.1	1.3	1.0	1.8	1.3	3.5	2.2	1.1	1.2	0.34
YLR351C	1.0	1.4	1.3	1.5	1.3	1.4	0.8	1.2	0.8	1.2	1.1	0.9	0.9	1.4	1.2	2.0	1.3	1.8	1.75
YLR375W	0.9	1.5	0.9	0.9	1.0	1.3	1.6	1.0	1.6	1.2	1.6	0.9	1.6	0.9	1.3	2.2	1.0	1.0	1.05
YMR267W	0.8	1.8	0.7	0.9	1.0	1.4	0.4	1.5	0.4	0.8	1.0	0.8	0.7	1.0	0.9	2.6	0.9	1.3	0.94
YMR278W	0.7	1.7	1.4	1.0	1.2	1.3	1.7	1.1	1.4	1.7	1.1	1.0	2.5	0.8	1.8	2.5	1.0	1.5	0.62
YMR293C	0.9	1.5	1.6	2.2	0.6	0.5	1.3	1.0	0.7	1.3	0.4	0.9	0.8	1.3	0.7	2.2	0.8	1.0	0.37
YNR072W	1.1	1.5	0.5	0.7	1.0	0.9	0.5	0.9	0.7	1.8	1.4	1.0	1.5	1.0	1.8	2.1	1.3	1.0	0.26
YOR363C	0.8	2.0	0.9	1.3	0.7	1.2	0.9	1.1	1.2	1.6	1.2	0.9	1.3	0.9	1.1	2.1	1.3	1.8	0.40

表8 脱毒性タンパク質遺伝子

化学物質存在下の発現mRNA／不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YDR453C	1.1	2.7	4.4	3.0	0.7	1.7	1.0	1.3	4.5	6.1	2.3	0.9	1.4	3.8	2.3	5.6	1.0	1.5	1.53
YLL060C	12.5	4.2	2.3	2.6	0.9	1.4	2.0	5.8	13.0	23.2	14.1	1.1	1.8	10.6	1.5	3.6	1.9	2.3	0.57
YBL064C	2.6	2.8	3.9	1.7	0.8	5.2	2.5	2.4	4.5	3.8	2.9	1.7	4.1	5.0	1.3	5.0	1.2	2.3	1.67
YBR008C	3.0	2.4	4.9	0.7	0.9	1.0	0.9	2.8	54.6	21.1	9.4	0.8	2.0	4.1	0.8	3.1	2.0	1.2	0.37
YOR153W	1.6	0.9	5.1	1.1	1.0	7.4	2.6	0.5	3.2	1.2	1.0	4.0	11.8	0.3	3.6	1.6	2.5	3.1	1.91
YHL047C	0.6	4.4	1.0	1.0	1.2	8.4	16.8	1.5	1.2	11.9	1.0	2.6	3.8	0.5	1.1	2.3	1.2	1.2	0.74
YCL035C	2.0	2.3	1.5	1.7	1.5	5.1	2.7	1.4	1.9	2.3	2.1	1.5	2.8	2.5	1.9	5.5	2.6	4.2	1.74
YGR197C	1.1	2.4	2.5	1.0	0.7	0.5	1.3	0.8	16.7	3.2	1.1	1.2	2.4	1.5	1.0	1.5	1.7	1.9	0.37
YHR055C	4.4	1.8	0.8	1.2	2.7	1.6	1.1	2.1	3.9	3.3	1.8	1.2	3.0	1.5	0.5	0.8	0.9	0.6	3.96
YNL239W	1.0	2.4	2.4	1.2	1.2	1.8	2.1	1.3	2.5	6.0	1.9	1.5	3.6	1.3	1.7	1.5	1.1	1.4	0.68
YNL241C	1.3	2.5	4.3	1.0	0.8	0.9	3.2	0.9	3.4	7.4	3.0	2.0	4.9	1.1	7.0	2.8	1.0	1.0	0.68
YBR293W	1.9	3.1	1.0	1.8	0.8	0.9	0.9	0.9	5.5	2.4	1.1	1.0	3.0	1.4	3.1	1.6	1.0	0.9	0.94
YDL100C	1.0	1.2	1.1	0.8	1.0	2.1	1.6	1.7	5.4	3.2	2.8	1.5	2.5	1.4	1.0	1.3	1.2	1.4	2.60
YER185W	2.0	3.1	2.1	7.0	1.6	1.2	1.1	1.0	2.9	1.2	1.6	1.1	2.1	1.6	1.7	0.6	2.6	1.1	0.26
YGL013C	0.9	1.2	0.8	0.7	1.1	2.3	0.9	1.4	3.0	1.5	0.9	1.0	2.3	0.8	1.0	0.9	1.1	1.0	0.43
YHR053C	3.5	2.1	3.6	1.1	2.9	1.3	1.2	2.2	4.5	2.9	1.4	1.1	1.9	1.5	0.3	0.7	1.0	0.5	3.99
YIR038C	1.3	3.5	1.4	2.0	0.7	2.5	2.0	1.3	4.6	4.5	3.4	1.1	2.5	2.5	1.2	6.0	2.8	2.0	1.11
YKL026C	2.7	2.0	1.2	4.9	1.0	1.8	2.5	1.8	7.5	3.0	3.0	1.0	2.3	1.8	0.8	6.6	1.6	3.3	0.61
YLL028W	0.6	0.9	4.6	0.5	0.9	1.7	1.0	0.7	1.2	2.3	0.7	1.3	4.1	0.7	3.1	0.6	1.2	1.2	1.02
YOR273C	0.7	1.0	1.7	1.0	1.1	0.4	0.4	0.6	0.6	0.5	1.5	0.8	2.6	0.5	0.8	0.6	3.2	3.1	1.20
YGR138C	1.1	1.6	1.0	1.2	0.8	0.8	0.7	1.0	0.5	1.0	0.7	0.6	0.6	0.9	4.5	0.7	0.7	0.7	1.24
YOR247W	1.7	0.6	3.6	1.4	0.6	0.2	0.5	0.7	0.1	0.4	2.9	0.6	0.3	0.4	7.3	0.2	1.2	0.9	2.23
YPL163C	0.6	0.7	1.4	0.9	0.6	0.6	0.4	0.5	0.1	0.4	0.5	0.9	0.4	0.6	5.3	0.6	1.4	1.4	1.05
YHL040C	1.6	4.4	1.5	0.4	1.1	7.3	4.0	1.5	1.1	11.3	1.7	2.0	2.0	1.1	3.4	1.0	1.4	1.0	0.69
YEL065W	0.3	3.8	1.2	0.4	1.4	2.3	4.3	0.9	0.1	4.9	0.6	1.7	0.8	0.4	2.2	2.6	0.7	0.6	2.10
YIR002C	0.8	1.1	0.5	0.6	1.2	2.2	1.3	1.2	1.7	1.4	0.8	1.3	1.2	1.1	1.1	1.4	1.1	1.2	0.58
YNL259C	1.6	4.5	1.1	1.2	1.1	3.9	3.8	1.5	1.6	2.1	1.6	0.7	1.1	1.4	0.7	1.7	2.6	2.4	1.22
YBR145W	1.5	0.7	2.8	0.9	1.1	11.5	58.8	1.0	0.1	1.1	1.1	1.0	2.0	2.2	1.2	3.6	1.7	2.0	2.17
YLR043C	1.4	1.4	2.0	1.8	2.0	1.4	2.6	1.1	2.8	2.5	1.4	0.8	2.0	2.1	0.5	1.8	1.5	2.2	2.12

Gene																			
YGR209C	3.17	2.4	1.3	1.9	1.3	5.0	1.4	0.9	3.1	6.3	2.4	1.6	1.7	1.9	1.9	1.5	3.5	3.1	1.6
YDL168W	1.08	0.8	0.9	1.1	1.2	1.6	1.3	0.6	1.9	4.7	8.2	1.7	1.1	1.4	1.2	0.9	2.1	2.0	2.3
YDR513W	3.10	3.2	1.3	3.8	1.3	2.0	1.8	0.9	2.0	3.1	4.6	1.6	1.6	2.1	0.9	2.6	2.3	2.5	2.2
YGR088W	0.75	2.0	0.9	5.6	0.7	1.3	1.2	1.1	3.9	3.2	1.5	0.8	0.8	1.3	1.0	2.4	7.7	1.2	1.3
YHR048W	0.26	0.9	0.7	1.4	0.9	1.7	1.1	0.9	2.0	2.7	4.5	1.9	0.8	0.8	1.0	1.7	1.4	1.4	2.5
YJL101C	1.13	1.0	0.9	1.3	0.5	1.0	1.0	0.7	2.7	3.6	3.1	1.3	1.0	1.0	1.4	1.2	2.1	1.9	2.1
YML116W	0.94	1.0	1.0	1.0	1.9	2.0	0.8	0.5	4.3	3.1	1.4	2.2	1.4	0.9	1.2	1.4	1.5	1.3	4.1
YMR038C	1.76	1.3	1.2	1.5	0.6	1.1	1.7	0.9	2.7	2.6	2.4	1.9	1.1	1.0	1.5	0.8	1.8	1.7	1.9
YBR244W	3.42	1.2	1.2	0.7	0.4	3.7	0.4	0.5	1.5	3.0	1.4	1.0	0.6	1.0	1.7	0.9	2.0	1.4	0.6
YCL069W	0.25	1.0	1.0	0.9	1.4	1.3	0.8	0.9	1.0	6.9	1.2	1.3	1.4		0.9	0.8	0.9	15.7	0.9
YKR105C	0.26	1.0	0.8	0.7	1.5	1.2	2.5	0.8	0.0	5.2	1.0	1.3	1.0	1.2	1.0	1.5	0.9	0.9	0.8
YOL158C	1.30	1.7	1.4	1.2	0.9	1.0	1.4	0.9	0.7	6.1	1.7	0.7	1.6	2.0	1.2	0.9	2.4	4.0	0.7
YDR256C	0.30	2.0	1.0	4.3	1.0	1.6	1.1	0.8	1.4	2.0	5.2	0.8	0.6	0.5	1.2	1.3	0.7	1.4	0.8
YGL254W	0.53	1.2	0.8	1.4	1.1	1.3	2.4	1.2	1.1	1.8	3.1	1.4	1.3	0.7	1.1	0.6	0.8	1.1	1.2
YKL064W	0.60	1.3	1.3	1.4	0.7	1.1	1.6	0.7	0.7	1.6	2.4	0.9	1.1	1.5	1.2	0.8	0.4	0.9	0.6
YLL057C	0.19	1.3	3.0	0.9	1.4	1.1	1.4	0.7	1.3	2.9	121.8	1.4	1.6	1.0	1.1	0.9	1.8	59.9	2.2
YPR200C	0.27	1.0	1.1	1.2	0.7	2.0	0.6	0.4	2.0	3.8	4.7	1.4	1.3	0.8	1.6	5.0	0.8	1.7	47.7
YJR104C	3.50	1.1	0.9	2.9	1.3	2.0	0.9	0.9	2.6	2.8	1.9	1.5	1.1	1.4	1.5	1.2	2.9	1.8	1.4
YKR106W	0.16	0.8	0.9	2.8		1.7	1.4	0.8	1.8	7.4	10.5	1.3	0.9	1.6	1.2	1.4	2.1	0.8	1.3
YOR031W	0.52	2.4	1.7	6.2	1.4	1.5	1.8	0.8	1.2	1.3	0.7	0.9	1.3	0.9	1.4	3.4	1.3	1.7	2.6
YHR008C	1.04	1.0	0.9	2.2	1.7	1.6	1.2	0.7	2.1	2.4	1.7	0.9	0.7	1.0	0.6	1.8	4.8	6.9	1.3
YML028W	4.85	1.5	1.1	1.3	2.2	2.0	1.6	1.6	1.0	1.8	0.8	0.8	0.8	1.2	1.6	1.3	4.4	2.2	1.0
YEL027W	4.75	1.4	1.0	1.6	1.5	1.4	0.7	0.9	0.9	1.1	0.9	0.9	0.8	1.1	1.0	1.1	3.4	0.6	1.2
YKR066C	1.25	1.1	0.9	1.3	0.6	1.5	0.6	0.9	1.3	2.4	0.7	0.7	0.5	0.9	1.0	0.7	5.5	1.4	0.9
YDR538W	0.53	0.9	1.0	0.9	1.0	0.9	0.7	0.7	0.9	0.8	0.3	1.0	1.2	1.0	1.0	1.2	2.4	1.1	0.9
YMR015C	2.51	1.0	1.0	1.5	1.2	0.8	0.4	0.9	1.0	0.3	0.1	0.7	0.4	1.3	1.7	0.9	1.9	0.7	0.7
YOR251C	1.34	1.3	0.9	1.2	0.6	1.1	1.0	0.9	1.0	0.8	0.8	1.1	1.0	0.9	0.8	1.8	1.3	1.0	1.1
YLR046C	0.86	5.4	5.2	1.3	0.8	1.3	1.2	0.8	0.9	1.4	1.0	0.5	1.5	3.8	1.0	0.8	0.9	1.7	0.7
YGR224W	0.27	1.3	2.8	1.0	1.1	0.9	0.8	0.6	0.8	0.9	0.9	0.6	0.4	0.8	1.4	1.2	1.2	1.2	0.9
YFL050C	0.36	1.0	0.8	2.3	1.4	1.0	1.2	0.9	1.2	1.6	0.5	0.9	0.8	0.9	1.0	2.2	1.1	1.0	0.7
YCR083W	0.98	1.3	1.3	3.1	1.0	2.4	1.8	1.1	1.8	1.8	1.8	1.5	1.8	2.4	1.6	1.8	1.5	2.8	1.1

表9　その他のカテゴリーに属する遺伝子

化学物質存在下の発現mRNA／不存在下の発現mRNA

酵母遺伝子	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	強度
YKR076W	5.0	2.6	3.5	2.2	1.0	4.7	4.9	6.2	43.4	43.1	18.6	1.5	5.1	14.7	3.2	9.6	1.8	2.7	0.27
YNL335W	1.2	0.7	1.5	2.3	1.5	1.6	1.3	1.7	1.6	5.3	1.1	0.8	0.9	4.6	1.7	1.0	1.2	1.1	0.22
YBR173C	1.1	2.4	3.4	1.6	0.7	1.3	1.6	1.2	6.0	5.1	2.5	1.7	3.8	3.0	15.4	2.1	0.9	1.6	1.15
YFL022C	0.8	0.9	1.5	0.6	0.7	0.9	0.3	0.8	0.5	0.5	1.2	0.6	0.6	3.1	1.1	1.3	0.9	0.8	1.07
YGL158W	1.1	2.8	1.9	12.9	1.0	0.4	1.3	1.3	-0.4	0.9	0.2	1.3	1.0	2.3	2.3	8.2	0.8	1.1	0.18
YHR139C	3.0	4.6	6.8	9.3	1.3	1.9	1.5	1.3	107.2	46.6	3.5	1.6	7.0	2.5	1.9	17.1	1.4	1.3	0.34
YGR213C	5.4	2.9	1.0	6.8	1.2	4.1	7.0	2.0	7.5	6.9	1.6	10.6	30.4	1.0	6.5	5.2	12.8	8.5	0.22
YKL165C	0.5	2.0	1.1	0.6	0.9	0.6	2.1	1.5	0.4	0.4	0.3	2.4	3.2	0.8	2.1	1.2	0.9	1.0	1.08
YBL005W-A	1.0	0.9	0.5	0.9	1.3	1.2	1.4	1.0	0.8	1.5	0.8	1.6	2.9	1.4	0.9	1.1	1.3	1.0	0.48
YBL041W	1.2	1.4	0.9	1.0	1.6	1.7	1.6	1.7	2.8	2.6	1.6	1.6	2.6	2.0	1.3	2.3	1.3	2.0	3.03
YBL078C	2.3	2.7	1.3	2.6	0.7	2.4	3.1	1.6	12.3	15.2	4.6	3.1	5.0	3.6	2.5	4.4	1.8	2.8	0.65
YCL020W	1.1	2.5	0.5	1.1	0.5	1.0	1.5	1.7	0.9	2.4	1.3	1.5	3.0	1.7	2.5	1.3	0.9	1.3	1.46
YDL007W	0.8	1.4	1.3	0.9	1.0	1.1	1.2	1.4	3.8	2.4	1.3	1.1	2.4	1.4	1.4	0.8	0.8	1.5	2.43
YDL097C	0.9	1.7	0.9	1.2	0.8	1.3	1.6	1.5	4.5	2.3	1.5	1.3	4.0	1.4	1.1	1.1	1.0	1.3	2.06
YDL126C	0.5	1.4	2.3	0.7	0.9	1.2	1.5	0.8	2.7	2.0	1.4	1.3	4.3	0.6	1.7	0.7	0.9	0.9	3.24
YER012W	1.4	1.2	1.2	1.0	1.9	2.4	2.4	1.8	6.7	2.7	1.9	1.5	2.9	4.6	1.7	2.2	1.5	1.3	1.84
YFR010W	1.1	1.1	0.8	1.2	0.9	1.3	1.4	1.6	4.3	3.4	1.5	1.2	3.7	1.1	1.5	1.3	0.9	1.4	1.89
YFR024C	0.8	25.0	2.3	1.1	0.7	1.4	3.0	0.9	5.3	4.1	1.9	1.5	2.8	1.2	0.9	1.9	1.0	1.4	1.06
YGL048C	1.0	1.3	0.7	1.3	1.8	1.5	2.0	1.5	2.4	2.1	1.5	1.3	2.5	1.2	1.0	1.6	1.4	2.0	3.07
YGL141W	0.8	1.2	1.1	0.7	1.4	3.0	1.7	0.8	4.5	1.9	0.6	1.4	3.6	1.2	1.5	1.2	1.4	1.2	0.44
YGL180W	1.3	1.3	1.7	0.6	1.2	1.1	2.4	1.2	7.2	3.7	1.3	1.4	2.6	1.0	1.3	1.7	1.0	1.1	0.28
YGR048W	0.7	2.7	1.4	1.3	1.0	1.0	1.9	1.4	4.4	3.1	1.1	1.1	2.5	1.3	0.8	1.1	0.9	1.2	0.93
YGR135W	1.0	1.0	1.0	1.1	1.6	1.5	2.2	1.8	1.5	2.3	1.6	1.2	2.8	2.6	1.5	1.5	1.0	1.9	3.10
YGR201C	1.7	11.9	2.4	2.0	0.8	3.1	2.6	1.6	5.4	3.5	1.6	1.9	8.6	1.6	0.5	14.4	1.4	2.1	0.60
YHL030W	0.5	0.8	1.0	0.7	0.7	1.9	0.9	0.8	2.7	2.5	1.1	1.1	3.8	1.0	2.0	0.5	0.8	0.9	0.66
YHR166C	0.9	1.1	1.0	0.7	1.0	1.8	1.5	1.0	2.6	1.2	0.6	1.7	6.9	1.2	0.9	1.1	1.4	1.5	1.35
YJR069C	0.8	0.8	0.9	0.6	0.9	1.2	1.3	0.9	0.7	0.6	0.9	1.1	3.9	0.6	0.4	0.8	1.0	0.9	1.73
YKL073W	0.6	1.4	0.5	0.6	1.2	0.5	2.1	1.6	1.3	1.1	0.5	1.5	3.3	0.7	1.6	1.0	1.2	1.5	1.29
YKL103C	1.6	4.1	2.5	2.1	0.9	2.7	2.8	1.6	8.3	9.9	2.8	1.3	3.8	2.0	2.1	1.2	1.9	2.2	0.56

Gene																			
YLR080W	1.0	1.4	1.2	1.7	1.1	2.5	2.8	1.3	2.3	1.5	1.9	0.8	3.6	1.2	0.7	3.0	1.6	2.2	0.41
YLR107W	1.2	0.9	0.5	1.2	1.7	2.3	1.6	1.1	1.8	1.2	0.8	1.0	2.9	1.6	1.1	1.6	1.8	2.4	0.94
YLR121C	1.7	1.7	1.1	1.2	1.0	1.6		1.3	2.2	2.0	2.2	1.1	4.0	1.2	10.7	1.5	2.7	1.4	0.30
YLR336C	0.6	0.8	0.7	0.4	0.9	0.8	1.8	1.0	-0.3	0.5	0.5	1.9	4.6	0.6	0.8	1.3	1.5	1.0	0.71
YLR370C	1.1	1.0	1.1	1.4	1.4	4.1	2.1	0.8	1.5	1.9	1.0	1.2	3.1	1.9	1.5	1.6	1.6	2.0	1.41
YLR423C	1.2	1.2	0.7	1.9	1.5	1.2	3.8	2.0	1.2	1.0	1.0	1.7	3.9	1.2	1.3	1.9	1.2	1.6	0.34
YML092C	1.1	3.1	2.4	1.1	0.9	1.9	1.2	1.2	6.4	4.0	2.5	1.2	2.3	1.6	1.4	2.2	1.3	1.5	1.72
YML130C	1.5	2.7	5.3	1.2	0.9	0.6	2.9	2.7	7.8	4.2	1.9	2.3	5.8	1.3	2.4	0.8	1.2	1.2	1.59
YMR214W	0.8	3.8	1.0	1.4	0.8	0.9	1.0	1.1	2.1	1.0	0.7	1.0	2.4	1.1	4.8	0.7	1.1	1.0	0.88
YMR297W	0.7	2.0	3.6	1.9	0.6	1.8	1.2	0.8	1.9	1.0	2.5	1.2	4.2	0.5	2.4	1.9	1.1	1.4	4.10
YNL036W	2.0	1.9	3.2	1.0	1.6	1.1	2.0	2.1	6.6	5.0	1.7	1.4	3.3	5.1	1.6	1.3	1.4	1.9	2.04
YOL005C	1.4	1.4	1.1	0.8	1.6	1.1	1.1	1.0	0.9	1.0	1.6	1.2	2.9	1.2	0.9	1.0	1.2	1.2	1.71
YOR134W	2.0	3.6	1.0	9.5	0.9	1.4	1.1	1.5	1.5	8.2	1.9	2.8	4.4	1.3	1.6	7.7	2.2	4.6	0.28
YOR362C	1.0	1.7	1.0	0.8	1.7	1.4	1.6	1.4	4.3	3.0	1.3	1.3	2.5	1.4	1.0	1.5	1.1	1.8	2.55
YAR009C	0.8	1.3	0.6	1.0	1.4	1.6	2.7	0.8	0.9	1.4	0.9	1.3	2.0	1.0	2.1	0.6	0.8	1.2	7.11
YBL101C	1.0	1.1	1.9	0.9	1.0	0.9	0.8	0.8	3.0	1.4	0.8	1.1	3.5	0.9	2.7	1.4	1.0	1.1	0.39
YBR046C	1.4	1.4	1.7	1.8	1.3	2.6	3.9	1.6	4.6	6.2	2.9	1.2	2.0	1.3	2.1	3.0	1.2	2.0	0.63
YBR139W	1.2	1.4	3.1	1.4	0.8	2.4	1.9	0.7	2.3	1.6	2.3	1.2	2.7	1.1	5.6	2.3	1.2	2.0	1.21
YBR170C	0.8	1.2	0.6	1.4	1.5	1.4	1.9	1.3	6.1	4.2	1.5	1.2	2.7	1.3	1.9	1.3	1.1	1.4	0.72
YBR177C	0.8	1.1	4.0	1.2	1.2	2.3	0.9	0.9	2.1	1.7	0.6	1.2	3.1	1.3	1.4	0.4	0.8	0.9	0.76
YBR212W	0.7	1.2	2.6	1.2	1.0	1.4	0.9	0.6	2.7	2.3	1.1	0.9	2.2	0.7	1.0	1.5	1.1	1.0	0.95
YBR239C	1.0	1.3	0.9	1.5	0.8	1.5	1.0	1.3	0.4	1.2	0.7	1.1	1.9	1.1	1.0	2.7	1.0	0.9	0.31
YCL033C	1.1	2.0	1.7	1.7	1.2	4.6	2.4	1.1	2.3	1.4	1.9	1.6	2.0	1.8	0.8	3.6	2.0	2.0	1.14
YCR062W	0.8	1.9	2.7	2.8	1.4	1.9	0.9	0.7	0.7	1.3	1.2	1.3	2.2	1.0	2.3	1.1	1.1	1.0	0.41
YCR067C	0.9	0.7	1.2	1.3	0.7	0.8	0.8	0.7	1.8	1.6	1.9	0.9	2.0	0.9	2.1	1.4	1.1	0.9	0.62
YDL020C	2.3	1.2	3.4	1.1	1.2	2.5	1.0	2.2	5.6	2.9	1.5	1.1	3.4	1.2	1.5	1.8	1.5	1.7	1.36
YDR168W	1.2	1.4	1.0	0.8	1.5	1.3	2.4	2.1	3.7	2.3	0.9	1.2	2.4	1.4	1.9	1.4	1.2	1.4	1.28
YDR169C	1.0	1.4	1.1	1.3	1.3	1.2	1.1	1.0	1.6	1.4	0.9	0.9	1.9	0.9	1.4	0.9	1.4	1.1	0.40
YDR188W	0.8	1.2	1.0	0.8	0.8	0.8	0.9	1.0	2.9	1.6	0.9	0.9	1.7	0.7	1.3	0.9	0.7	0.8	1.78
YDR264C	0.5	2.6	0.9	1.4	0.9	1.8	3.2	0.8	1.1	3.4	0.9	1.1	2.1	0.7	2.3	1.5	1.2	1.4	1.63
YDR304C	1.0	1.8	2.7	1.3	1.5	2.1	2.0	1.3	3.9	1.9	1.2	1.3	2.3	1.7	1.0	4.0	1.6	1.8	2.23
YDR403W	1.0	1.2	1.6	1.0	1.2	1.1	1.2	1.2	4.1	3.6	1.0	1.0	2.0	1.1	0.9	0.9	0.9	1.0	0.35

Gene																			
YDR427W	2.37	1.5	1.0	1.1	1.3	1.0	2.1	1.1	1.2	2.0	2.3	1.2	1.4	1.9	1.5	0.8	0.8	1.1	0.8
YEL012W	0.74	2.2	1.5	2.5	1.1	1.9	2.2	1.2	2.2	4.2	4.6	1.4	4.7	1.6	1.7	1.8	1.0	1.8	1.3
YER009W	3.35	2.1	2.0	1.5	0.9	1.6	2.0	1.1	1.4	1.0	0.7	1.0	2.8	2.0	1.2	1.2	2.4	0.6	1.3
YER021W	2.02	1.5	0.8	1.4	0.8	1.3	1.8	1.0	1.3	2.2	3.0	1.2	1.5	1.1	1.4	0.9	0.9	1.0	0.8
YER094C	3.01	1.8	1.3	1.5	0.8	1.5	2.1	1.1	1.3	1.7	2.3	1.3	1.8	1.1	1.9	1.1	0.9	1.3	1.0
YER177W	5.81	2.0	0.9	1.0	1.4	0.9	2.2	1.1	1.9	1.7	1.8	1.1	1.2	1.6	0.9	1.5	2.1	1.5	1.4
YFL029C	0.49	1.4	1.2	1.2	1.3	1.9	1.8	1.1	2.1	2.9	4.3	1.5	1.6	1.0	1.7	1.8	1.2	1.2	1.0
YFL038C	2.31	1.6	1.2	2.1	1.5	1.5	2.1	1.2	1.7	1.9	2.1	1.4	1.7	1.3	1.5	1.3	0.7	1.5	1.0
YFR004W	2.44	1.4	1.0	1.3	1.1	2.1	2.0	1.5	1.3	2.6	3.6	1.4	1.3	1.5	1.0	1.4	0.8	1.2	1.0
YFR050C	1.70	1.7	1.1	1.5	1.5	1.6	2.1	1.0	1.4	2.1	3.1	1.4	1.4	1.5	1.7	1.1	1.1	1.5	0.9
YGL011C	1.78	1.5	1.3	1.7	1.3	3.0	2.1	1.0	1.5	2.2	2.0	1.3	1.5	1.6	1.8	1.1	1.1	1.3	1.2
YGL094C	0.51	0.9	1.0	1.0	1.9	0.9	2.3	0.8	0.6	1.1	1.4	1.0	0.8	1.0	1.3	0.9	0.3	0.8	0.8
YGL150C	0.62	0.8	0.9	1.0	1.3	1.0	2.4	0.8	0.4	0.9	1.4	0.8	0.8	1.0	0.8	1.0	1.2	0.6	0.7
YGL207W	0.88	0.8	0.9	0.7	1.2	0.8	2.5	0.7	0.7	1.1	1.4	1.0	0.6	1.1	1.3	0.6	0.9	0.6	0.5
YGR232W	0.96	1.2	1.3	1.8	0.9	2.1	2.4	1.1	1.3	2.2	3.4	1.1	2.0	1.9	1.5	1.7	1.2	1.2	1.2
YGR248W	0.52	1.5	1.0	7.9	1.5	1.5	2.0	1.1	2.3	3.2	2.8	1.6	1.1	2.3	0.5	4.0	3.2	0.9	1.3
YGR253C	2.01	2.1	1.5	1.8	1.1	1.8	3.4	1.0	2.4	3.1	4.0	2.0	1.6	1.4	2.0	1.3	0.7	1.2	1.3
YHR027C	2.06	1.0	0.8	0.9	1.5	0.7	2.1	1.0	0.6	2.2	3.6	0.6	0.9	0.4	1.1	0.6	1.2	1.1	0.5
YHR161C	0.86	1.5	1.4	1.7	1.4	1.0	1.8	1.0	0.7	2.0	2.5	0.7	1.8	1.2	1.5	2.1	1.3	1.5	0.6
YHR169W	0.81	1.3	1.6	1.0	0.6	1.1	3.3	1.4	0.9	0.2	0.0	0.9	0.9	1.2	1.1	0.4	0.4	1.1	0.6
YIL010W	0.70	1.5	1.5	1.7	0.6	1.7	2.3	1.0	1.4	2.2	1.4	0.9	1.5	1.2	1.2	0.8	1.4	1.2	0.6
YIL034C	0.99	1.5	1.2	1.7	1.1	1.1	2.6	1.1	1.6	1.3	2.1	0.9	1.2	1.2	0.7	3.0	1.5	0.8	1.0
YIL142W	1.84	0.8	0.9	0.7	1.3	1.0	1.8	1.4	1.7	3.0	4.4	1.1	0.8	1.1	0.7	1.1	0.9	1.1	0.7
YIR039C	0.45	1.1	1.2	4.2	2.0	3.2	2.9	1.0	3.8	4.1	4.4	1.3	4.1	3.2	1.5	4.2	4.3	1.8	1.4
YJL001W	3.00	1.6	1.0	1.8	1.2	1.7	2.9	1.6	1.5	2.8	3.1	1.5	1.6	1.7	1.1	2.0	1.2	1.7	0.9
YJL035C	0.82	1.0	1.0	0.6	0.7	1.1	2.4	1.1	0.8	1.4	1.7	1.5	1.3	0.7	1.5	0.6	0.8	1.3	0.9
YJL053W	0.80	1.6	1.3	1.7	1.1	1.0	1.9	1.1	1.6	2.2	2.2	1.3	1.7	2.0	1.2	1.3	1.7	0.9	1.1
YJL164C	1.04	1.7	1.3	2.1	0.8	0.9	2.1	1.0	1.5	0.8	2.1	0.9	3.1	2.7	0.6	1.9	1.0	1.1	1.1
YJL210W	0.70	1.0	0.9	2.3	0.8	0.9	2.2	1.0	2.4	0.9	2.0	1.0	1.0	0.6	1.2	2.0	1.6	1.4	1.2
YJR117W	1.34	0.9	0.8	0.7	2.2	0.8	2.8	1.2	1.0	2.3	4.7	0.8	1.0	1.3	1.0	0.7	2.3	2.1	1.0
YKL007W	1.13	1.3	1.4	1.0	1.0	0.7	2.5	1.3	1.8	2.4	2.3	1.2	1.5	0.9	1.0	0.9	1.2	1.6	1.2
YKL117W	3.73	1.8	1.2	1.8	1.6	1.6	2.4	1.0	1.6	2.1	2.9	1.5	1.3	1.0	1.8	1.0	0.8	1.3	1.0

YKL193C	1.3	0.8	1.1	1.4	1.1	0.9	2.1	1.4	1.0	1.6	1.7	0.9	2.1	1.2	1.2	2.4	1.2	2.3	0.71
YLR120C	1.2	1.9	2.4	1.6	1.1	1.9	1.5	0.9	1.8	1.6	1.2	1.6	4.8	0.8	2.7	1.7	3.5	2.9	1.53
YLR136C	1.3	9.0	0.6	3.3	1.6	1.7	3.9	1.1	0.9	6.0	1.2	1.3	2.9	0.7	2.1	1.2	1.8	1.4	0.41
YLR178C	1.7	6.9	8.8	4.6	1.0	4.2	3.3	0.9	4.3	4.1	3.7	2.2	7.5	2.8	2.3	10.6	2.0	3.6	1.03
YLR327C	5.5	3.3	14.4	8.2	1.3	5.1	5.7	2.2	3.0	8.3	5.0	1.4	2.8	1.5	0.8	2.8	3.3	5.3	2.23
YLR356W	1.0	2.9	4.9	1.2	1.1	3.4	1.1	0.7	2.3	1.6	3.1	1.5	2.5	2.2	2.8	0.9	1.1	1.0	0.41
YLR362W	1.1	1.2	1.0	3.0	1.5	0.8	1.9	1.4	3.5	3.3	1.5	0.8	2.4	1.2	1.3	1.9	1.2	1.3	0.35
YLR429W	0.7	1.0	0.6	0.9	1.4	0.8	1.3	1.0	0.9	1.3	0.9	1.1	2.3	0.7	1.5	1.0	1.0	0.9	0.86
YMR004W	0.9	0.9	1.3	1.3	1.0	0.5	1.2	1.0	94.2	3.4	2.5	1.0	2.2	2.2	1.3	1.3	0.9	1.3	0.52
YMR219W	0.7	1.1	1.0	0.7	1.6	0.8		1.1	2.3	0.9	1.5	1.5	2.1	0.5	1.7	0.8	1.1	0.9	0.23
YMR275C	0.7	0.7	1.2	0.6	0.7	1.4	0.8	0.8	2.4	2.1	1.1	0.7	2.1	0.8	1.7	1.0	0.9	0.7	0.79
YMR314W		1.2	0.9	1.3		1.3	1.1	1.2	5.9	2.7	1.8	1.0	2.6	1.0	1.2	1.6	1.3	1.6	1.67
YNL006W	1.1	2.1	1.3	1.5	0.9	1.0	1.6	1.1	4.0	4.0	1.1	0.7	2.3	0.8	0.7	0.9	1.0	1.3	1.20
YNL007C	0.7	2.4	5.1	0.8	1.2	0.6	1.2	0.8	3.0	1.7	1.3	0.7	2.1	0.4	0.8	0.5	1.1	1.0	3.62
YNL093W	2.1	6.4	0.4	4.5	1.2	1.6	1.4	0.8	1.7	2.0	1.6	1.1	2.2	1.1	0.6	4.9	3.0	3.1	0.32
YNL333W	1.0	1.4	1.7	2.3	1.5	1.5	2.9	2.1	2.3	2.1	2.0	1.0	2.2	1.9	1.0	1.4	1.4	1.1	0.49
YNR010W	1.3	1.2	1.3	2.8	1.8	1.3	1.5	1.1	1.7	0.9	1.4	0.8	2.8	1.3	0.8	1.2	1.7	2.3	0.37
YNR069C	1.5	1.3	0.8	0.4	1.4	1.7	1.4	1.4	5.5	5.8	2.5	1.2	3.4	2.1	1.0	0.8	1.1	0.9	0.18
YOL164W	0.9	4.4	1.0	1.5	1.6	1.2	2.2	1.0	4.9	3.6	1.0	1.1	3.4	1.3	1.0	1.1	1.1	1.3	0.45
YOR036W	1.8	0.9	1.4	1.6	1.1	1.7	1.8	1.4	1.2	1.9	1.3	1.2	2.1	1.2	1.2	1.3	1.6	1.7	0.98
YOR117W	0.8	1.3	1.7	0.8	1.2	1.1	3.3	1.0	3.5	1.8	1.2	2.5	2.3	1.0	1.4	1.2	1.4	0.9	1.42
YOR124C	0.6	1.1	1.3	0.8	1.1	0.9	1.1	1.3	2.0	1.9	1.2	0.9	2.1	0.8	1.3	0.9	1.0	1.0	0.65
YOR132W	0.9	1.6	0.8	2.8	1.1	1.6	1.4	1.2	2.8	1.6	1.3	0.7	2.5	0.7	1.5	1.6	1.2	1.6	0.46
YOR157C	1.0	1.3	1.2	1.3	0.7	1.2	1.2	1.2	5.7	2.6	1.6	1.3	2.4	2.2	1.9	0.9	1.2	1.2	1.23
YOR185C	1.1	1.3	1.9	1.1	1.2	3.0	1.3	1.4	1.9	2.9	1.2	1.5	2.2	2.1	1.0	2.2	0.9	1.1	1.67
YOR259C	0.8	1.1	0.8	0.9	2.0	0.8	1.3	1.1	2.7	1.5	1.0	0.8	1.8	1.2	1.3	1.4	0.9	1.5	2.33
YOR261C	1.0	1.4	0.6	0.9	1.5	1.4	1.9	2.6	5.5	2.5	2.1	0.9	2.5	1.8	1.3	2.0	1.0	1.9	2.80
YOR288C	0.9	1.3	1.1	1.1	1.1	1.0	2.0	1.9	0.9	1.0	1.4	1.4	2.4	0.8	1.8	1.4	1.5	1.6	0.79
YPL109C	1.1	2.5	0.5	1.2	1.2	1.2	1.8	1.1	1.2	1.5	-0.2	0.9	1.8	1.3	1.3	1.9	1.2	1.2	0.21
YPL149W	1.5	1.5	0.6	2.8	0.8	0.9	1.2	1.1	5.6	3.7	1.2	0.9	2.3	1.0	0.8	1.2	2.2	2.9	1.39
YPL154C	0.7	3.3	4.2	1.2	1.2	3.5	1.5	0.8	2.8	1.7	1.8	1.5	3.1	0.8	4.0	1.8	1.6	2.0	3.78
YPR103W	0.7	1.1	1.3	0.7	1.7	1.2	1.6	1.0	5.5	2.0	0.9	1.2	2.8	1.8	1.0	1.1	1.2	1.5	1.93

Gene																			
YPR108W	0.8	1.0	1.3	0.6	1.3	1.5	1.6	1.6	3.7	2.8	1.8	1.0	2.6	1.0	1.3	1.2	1.0	1.3	2.25
YCL027W	0.7	2.0	1.0	1.0	1.2	1.3	1.0	0.6	0.7	16.3	0.9	0.8	1.1	1.2	3.6	1.1	0.7	0.8	0.30
YDR055W	1.7	2.1	2.2	2.8	1.7	3.9	1.5	1.6	0.8	2.4	2.2	1.4	3.1	0.9	5.7	3.4	2.0	1.9	1.55
YEL042W	0.6	0.9	1.7	0.9	0.7	0.5	0.5	0.7	0.2	0.3	1.6	1.0	0.4	0.6	4.8	0.6	0.7	0.8	1.21
YGR136W	0.9	1.2	1.3	0.7	1.2	1.1	1.5	1.3	2.1	2.2	1.3	1.2	1.7	1.1	2.6	2.2	1.3	1.8	1.42
YHR142W	1.5	0.8	2.1	0.8	1.3	1.2	0.9	1.3	0.4	0.9	1.1	1.3	1.2	1.2	4.8	1.0	1.3	1.3	1.17
YJL073W	0.8	0.8	2.5	0.7	1.2	2.0		1.0	1.7	0.7	0.5	1.0	1.6	1.1	2.6	0.8	1.1	1.0	0.43
YJR004C	0.2	0.8	3.4	0.6	1.1	1.2	0.4	0.4	0.3	0.7	0.7	0.8	0.3	0.7	3.2	0.3	0.4	0.4	2.12
YKL039W	0.8	1.1	2.4	0.8	0.7	4.9	2.0	0.8	1.3	3.3	1.0	0.9	1.9	0.8	3.1	1.5	1.2	1.3	1.13
YLR250W	1.5	1.0	1.0	1.4	1.4	1.1	1.9	1.3	2.7	2.4	1.4	1.0	1.2	2.5	2.6	2.1	1.4	2.2	2.90
YOR181W	1.0	0.9	1.1	1.4	0.7	0.9	0.7	0.7	0.6	0.5	1.0	0.8	1.2	0.9	3.4	0.9	1.1	0.6	0.39
YOR198C	1.0	0.7	1.4	1.0	0.8	0.9	1.6	1.3	2.4	1.4	1.4	1.5	1.8	1.1	3.8	0.8	1.1	1.5	1.76
YPL089C	1.2	1.0	0.5	1.8	1.4	0.8	0.9	0.8	0.4	2.5	0.9	0.7	1.3	0.8	2.6	0.9	1.5	1.1	0.37
YBR214W	0.9	2.1	5.7	2.0	1.1	0.8	1.1	0.7	2.2	3.5	3.2	1.2	2.1	0.9	5.1	1.3	1.1	1.2	0.51
YDR085C	1.9	1.8	1.6	3.4	0.9	2.1	4.1	2.0	0.4	2.3	1.7	1.6	1.1	1.6	3.1	2.3	1.3	1.8	0.37
YDR259C	1.4	1.0	0.4	1.5	1.0	0.5	2.8	1.4	1.0	1.8	1.2	1.0	2.0	1.5	2.9	0.9	1.0	0.8	0.28
YDR388W	0.7	0.7	1.2	1.4	0.7	1.0	1.1	0.8	1.4	0.9	1.6	0.6	1.7	0.6	2.6	1.0	1.2	1.3	0.99
YDR432W	0.5	0.8	1.0	1.0	1.6	0.6	0.5	0.5	0.7	0.8	0.6	0.5	1.4	0.5	2.6	0.6	0.7	0.7	2.38
YDR481C	0.7	2.3	1.3	1.4	1.0	0.9	0.7	1.0	1.9	1.6	1.2	0.9	1.5	0.9	3.5	1.3	1.2	1.4	1.43
YDR510W	1.0	1.3	1.5	0.7	0.7	1.0	1.6	1.5	2.7	2.5	1.6	1.4	2.0	1.9	2.2	1.5	1.1	1.5	1.57
YGR189C	1.1	0.9	1.5	1.3	1.6	0.5	0.6	1.0	0.3	0.9	1.5	1.3	1.2	0.9	9.3	0.6	2.3	1.7	1.51
YIL123W	1.0	0.5	1.2	3.5	1.0	0.5	0.5	0.6	0.1	0.2	1.2	0.8	0.4	0.3	4.8	0.7	1.3	1.0	1.67
YIL140W	0.7	1.0	1.5	1.5	0.7	0.5	0.5	0.7	0.7	0.6	0.9	1.0	0.5	0.9	3.3	0.6	0.7	1.0	0.62
YKL096W	1.4	0.6	8.1	1.4	1.3	0.6	0.2	0.5	0.0	0.5	3.5	0.3	0.1	0.5	2.3	0.4	0.5	0.7	2.04
YLR391W		0.7	2.9	1.6	0.7	1.5	0.7	0.7	0.4	0.7	1.4	1.0	0.9	0.9	3.9	1.3	1.4	0.9	1.72
YMR094W	1.0	0.5	1.3	0.8	1.6	0.5	0.8	1.0	-0.1	0.9	1.0	0.9	1.4	1.9	6.6	1.0	1.0	1.0	0.23
YMR104C	1.9	14.3	2.2	1.7	0.9	1.9	1.5	0.9	0.6	3.2	1.1	1.0	1.5	0.9	2.5	2.3	2.8	2.3	0.51
YMR276W	0.6	1.4	1.5	2.6	0.7	0.8	1.1	0.8	1.8	1.7	1.9	1.2	1.9	0.8	3.3	0.9	1.2	0.9	0.47
YOL013C	0.9	1.0	1.0	0.7	1.3	1.1	1.7	1.0	0.8	1.0	1.4	0.9	1.8	1.3	2.7	1.3	1.1	1.3	0.65
YOR355W	0.7	0.6	1.1	1.5	0.7	1.6	1.1	0.8	0.1	0.8	1.2	0.6	1.1	0.7	3.2	0.8	0.8	0.8	0.98
YCR071C	1.1	0.7	0.9	0.8	1.0	2.5	1.4	0.9	0.6	1.2	1.1	1.7	1.3	1.4	1.1	1.5	1.2	1.5	0.96
YDL008W	1.1	1.0	1.0	1.1	1.2	2.7	2.0	1.2	2.3	3.0	0.9	2.2	2.0	2.2	0.7	1.3	1.5	1.6	0.95

Gene																			
YDR115W	1.50	1.4	1.2	2.2	0.8	1.5	1.1	0.9	1.2	1.0	1.1	1.3	1.6	2.3	1.4	1.5	0.6	0.9	1.3
YER130C	1.36	2.5	3.0	0.7	1.1	0.8	1.6	1.0	0.9	1.3	0.5	1.2	1.5	2.7	1.7	0.8	0.5	1.6	0.9
YMR226C	2.03	2.0	1.6	1.7	2.0	1.6	1.6	1.1	1.4	2.2	2.6	1.6	1.8	2.6	0.9	1.6	1.4	1.8	1.1
YOR383C	0.68	1.1	1.4	3.0	1.1	0.6	1.2	1.1	1.4	4.5	1.2	1.0	8.0	6.8	0.9	0.9	2.6	4.3	0.9
YAR010C	4.69	1.0	1.5	0.7	1.8	1.0	1.4	1.0	0.9	1.1	1.2	1.3	1.9	2.3	1.0	0.8	1.2	1.2	0.8
YBL043W	0.47	1.8	2.3	2.3	1.8	1.9	1.8	0.9	1.5	14.7	0.5	2.1	1.5	26.9	1.1	1.3	1.1	1.2	1.2
YCR004C	3.02	3.5	1.4	4.9	0.8	3.7	1.3	0.8	1.9	2.1	4.7	1.2	1.4	1.8	1.2		12.0	1.0	1.7
YCR088W	0.47	0.9	1.4	0.7	2.8	0.9	1.9	1.3	1.0	0.9	0.8	0.5	1.2	2.0	1.1	0.9	1.2	1.1	0.9
YDL238C	0.35	1.3	1.1	1.7	1.3	1.2	2.0	0.9	1.1	2.7	1.7	5.8	1.4	2.1	0.9	1.7	1.1	1.0	0.7
YDR084C	1.12	1.3	2.0	1.0	3.9	1.0	1.0	0.7	0.7	0.6	0.6	0.7	0.9	2.1	1.2	1.1	1.5	0.9	0.9
YDR104C	0.34	1.0	0.9	0.9	1.4	1.4	1.6	1.1	1.0	2.7	2.8	1.3	1.0	1.7	1.3	1.2	1.2	1.1	0.8
YDR315C	0.48	1.2	1.2	1.5	1.5	1.4	1.6	0.6	1.1	1.6	1.1	1.4	1.4	9.4	0.9	1.3	1.0	1.4	1.0
YDR358W	0.50	1.9	1.9	2.2	0.9	1.2	3.2	1.1	1.0	3.2	2.9	1.2	2.8	2.5	1.4	1.1	0.7	1.1	0.7
YEL066W	0.64	1.1	1.0	1.9	1.0	1.9	1.6	0.8	1.9	2.4	1.3	1.4	1.8	2.2	0.8	2.2	1.5	2.9	2.0
YER039C	0.42	1.1	1.7	1.8	1.2	1.2	2.1	0.9	1.2	0.8	1.2	0.7	1.3	1.6	1.5	4.1	1.0	1.2	1.0
YER107C	0.92	1.2	1.1	0.9	0.7	1.1	0.9	0.7	0.7	0.5	0.4	0.8	1.0	2.5	1.3	0.6	1.0	0.5	0.9
YFL028C	1.28	1.5	1.2	1.9	0.8	1.6	1.4	1.1	1.3	1.8	2.7	1.5	2.0	1.7	1.7	1.5	0.7	1.1	1.2
YFL043C	0.38	1.2	1.5	2.0	1.1	1.5	1.5	0.9	1.1	3.8	2.2	1.0	1.8	1.8	1.2	1.2	0.6	1.2	1.0
YGL229C	0.44	0.9	1.1	1.8	0.2	1.0	1.7	1.1	1.1	1.7	1.8	0.7	2.2	2.2	1.0	0.8	0.9	0.7	0.6
YGR257C	0.84	1.3	1.1	1.3	1.3	0.9	2.0	0.9	1.2	1.9	1.5	1.0	2.4	2.1	1.3	1.1	0.9	0.8	0.7
YHR004C	0.84	1.6	1.4	2.4	1.2	0.8	1.1	0.9	0.8	0.6	1.1	0.9	1.5	2.0	1.5	1.1	0.8	1.1	0.9
YHR071W	0.79	1.0	2.6	1.7	3.0	1.6	2.3	1.2	1.8	7.2	1.0	1.7	1.0	2.0	1.5	1.6	0.6	1.1	1.5
YJL089W	0.21	1.1	1.2	1.2	6.4	1.8	1.8	1.1	0.6	3.9	1.6	1.1	1.1	1.6	1.1	0.8	1.0	1.5	1.1
YJL116C	1.01	0.7	1.2	1.3	1.0	2.6	4.3	0.9	2.9	2.6	2.4	1.8	0.8	3.4	1.3	1.9	1.3	1.8	0.9
YJR086W	1.24	1.6	1.4	1.4	2.0	2.2	0.9	1.5	1.0	1.1	1.4	1.1	1.7	1.9	1.3	1.4	0.8	1.1	1.2
YKL008C	2.11	1.9	1.4	2.1	1.3	0.8	1.7	0.7	1.5	0.4	0.3	1.2	1.4	3.8	0.9	0.8	2.0	0.6	1.2
YKL013C	1.55	1.7	1.6	1.5	1.2	1.4	1.3	0.8	1.1	1.4	1.5	0.9	1.8	1.9	1.9	1.1	1.4	0.9	1.4
YKL041W	0.91	1.3	1.1	2.5	1.0	1.3	1.3	0.8	1.2	1.5	1.6	1.6	1.0	2.2	1.3	1.0	1.1	0.8	1.2
YKL139W	0.62	0.8	1.9	1.3	1.0	1.0	1.6	0.8	1.4	1.5	1.6	1.2	2.6	3.5	2.8	0.8	1.0	0.7	0.9
YKR014C	2.05	1.7	1.0	2.4	1.4	1.8	1.5	1.1	1.1	2.0	2.4	1.6	1.7	2.1	1.5	1.1	0.8	1.3	1.1
YLR093C	1.90	3.2	1.7	2.4	0.9	1.3	1.3	1.0	1.0	1.3	1.5	1.2	1.9	2.9	1.4	1.2	0.7	0.8	1.3
YLR118C	1.17	1.9	1.3	3.5	0.8	1.5	1.4	1.0	1.2	1.3	1.1	1.0	1.5	2.5	1.0	1.0	1.6	1.1	1.0

YLR251W	1.8	0.8	4.2	4.6	1.6	2.1	2.6	1.2	2.1	1.3	4.1	0.8	1.7	1.3	0.8	2.5	2.1	3.8	0.78
YMR027W	0.8	2.6	0.7	0.8	1.1	2.1	2.0	0.9	1.1	1.4	1.1	0.9	2.4	0.9	4.0	0.8	1.3	1.2	4.05
YMR262W	1.0	1.3	1.9	1.1	1.2	2.0	1.9	1.0	3.0	1.2	1.3	0.8	1.7	0.9	0.3	1.0	1.0	1.2	0.65
YNL214W	1.2	0.9	1.1	1.1	1.4	2.3	1.3	1.1	1.5	1.5	0.6	0.8	1.2	1.7	0.9	2.0	1.1	1.2	0.47
YOR149C	0.7	0.9	1.0	0.8	1.1	2.3	1.0	0.7	0.4	1.0	1.0	0.9	1.3	0.9	1.3	1.1	1.0	1.2	0.76
YOR165W	0.9	1.5	0.7	0.8	0.8	2.2	0.9	1.1	0.8	1.3	1.3	0.7	0.9	0.8	0.8	1.0	0.9	1.0	1.03
YOR285W	1.4	6.0	3.5	1.9	1.7	2.1	4.0	1.2	4.0	2.9	2.3	0.9	2.1	1.6	2.0	2.9	2.3	3.3	2.62
YOR367W	1.0	0.9	1.7	0.9	1.1	3.3	1.9	1.1	1.1	1.1	1.4	0.5	0.8	1.5	1.1	1.3	1.4	1.4	0.60
YPL018W	1.0	1.4	1.0	0.5	1.8	2.1	0.9	1.1	1.4	1.2	1.3	1.1	2.2	1.3	0.9	0.8	1.3	0.8	0.22
YPL203W	1.3	1.0	2.2	1.0	2.1	1.8	2.1	1.1	1.8	2.1	1.5	0.9	1.5	1.0	0.6	2.3	1.3	1.7	0.79
YPL255W	0.8	0.3	1.1	0.6	0.9	2.0	0.6	0.9	0.1	0.1	0.7	0.6	0.6	0.7	0.6	0.7	0.8	0.7	0.55
YPR073C	1.2	1.9	0.5	1.4	1.8	2.0	2.5	1.5	1.3	2.6	0.9	0.8	1.4	1.5	0.8	1.8	1.4	1.8	1.55
YDR518W	0.8	1.7	1.1	1.2	1.6	1.2	2.7	1.1	0.2	1.2	1.0	1.5	1.8	0.8	2.5	1.7	1.4	1.6	0.93
YOR381W	0.8	2.0	0.8	1.8	1.0	1.0	3.6	0.8	1.2	3.5	2.6	1.1	1.7	0.8	0.6	2.5	0.8	0.9	0.38
YBR109C	1.6	1.3	2.4	1.1	1.0	1.4	2.4	1.7	3.8	3.3	1.5	1.4	2.0	2.0	1.4	1.9	1.4	1.9	2.15
YBR201W	1.2	4.3	1.2	2.4	1.2	1.0	3.4	2.2	0.8	1.0	1.1	1.7	1.9	1.1	1.6	1.5	1.8	1.6	0.75
YDR041W	1.2	1.1	0.6	1.8	2.0	1.6	2.4	1.2	1.3	1.3	1.2	0.8	0.9	1.4	1.0	2.4	1.5	2.5	1.85
YER136W	0.9	1.1	1.1	1.4	1.6	1.3	2.1	1.3	1.4	1.6	1.7	0.9	1.3	0.8	1.2	1.6	1.3	1.7	2.31
YER159C	1.1	0.9	0.2	1.6	2.1	1.3	2.0	1.4	0.2	0.9	1.6	0.9	0.9	1.1	2.2	1.1	1.6	1.9	0.99
YJL030W	1.6	1.4	0.5	1.0	1.3	1.1	1.9	1.6	2.3	1.9	1.4	1.0	1.4	2.1	1.5	1.9	1.3	1.5	0.87
YJR029W	0.8	1.3	0.6	0.8		1.0	2.4	0.9	1.1	1.5	0.6	1.0	2.1	1.1	1.8	0.7	0.8	1.1	5.84
YJR099W	1.4	0.9	1.1	1.3	1.5	2.1	2.0	1.4	1.4	2.4	1.3	0.7	1.5	2.1	0.5	2.0	1.1	1.7	0.94
YJR122W	2.0	1.4	2.5	1.1	1.3	1.4	1.8	1.4	5.3	6.1	2.4	0.9	1.3	1.4	0.8	1.9	1.0	1.1	0.43
YJR125C	1.0	1.0	1.2	1.0	1.2	1.3	1.9	0.9	1.8	1.3	1.1	0.9	1.5	1.1	1.3	2.0	1.2	1.4	0.90
YKL190W	1.1	1.3	0.4	0.9		1.5	2.0	1.1	1.8	1.9	1.5	0.9	1.3	1.7	1.4	1.8	1.3	1.3	1.14
YLL051C	0.8	1.1	1.0	1.5	1.4	1.2	2.0	0.9	0.9	1.8	0.7	1.1	1.3	0.8	1.2	0.8	1.0	1.0	0.81
YLR090W	0.7	1.1	0.8	1.3	1.2	1.3	2.2	0.9	1.8	1.4	1.0	0.8	1.7	1.0	0.8	1.9	0.8	1.0	0.67
YMR051C	0.9	1.1	0.8	1.3	1.7	1.2	2.6	0.9	1.0	1.4	1.1	0.9	1.3	1.2	1.7	1.0	1.8	1.2	3.91
YMR139W	1.0	2.8	2.5	1.5	1.2	1.5	2.2	0.9	2.8	2.4	1.3	0.9	1.6	1.3	0.9	2.3	1.1	2.0	0.89
YNL015W	2.3	3.4	1.8	2.4	1.8	1.7	3.5	2.2	2.1	4.3	2.1	2.8	3.9	1.6	1.4	5.3	3.0	5.2	1.03
YNL079C	1.1	6.7	0.4	1.0	1.7	1.1	1.9	1.6	1.5	1.2	1.3	1.2	1.8	1.0	1.5	1.4	1.0	1.9	3.26
YNL223W	1.1	1.2	0.6	1.7	1.0	1.8	2.2	1.4	3.3	1.9	1.3	1.3	2.0	1.2	1.0	2.1	1.0	1.5	0.34

Gene																			
YNR007C	1.2	1.8	0.7	1.0	1.5	1.3	1.9	1.2	2.5	2.0	0.7	0.9	1.5	1.5	0.6	2.0	1.4	1.6	0.49
YNR035C	0.8	1.2	1.7	1.0	0.8	1.1	2.6	1.1	2.9	1.5	1.5	1.1	1.7	1.0	1.3	1.6	1.4	1.8	1.60
YOL016C	1.3	2.0	0.4	2.0	1.6	0.9	3.0	1.3	1.9	1.6	1.3	1.4	3.0	0.7	0.5	1.6	4.3	3.8	2.10
YOL104C	1.0	1.7	0.2	1.8	1.9	1.4	2.6	1.4	0.2	1.7	1.2	0.8	0.6	2.2	1.3	0.5	1.1	0.9	0.32
YPR107C	1.4	1.0	1.2	1.9	1.5	1.3	2.0	1.3	2.4	2.4	1.2	0.7	1.4	1.7	1.0	1.4	1.2	1.5	0.81
YOL152W	0.2	0.6	1.0	0.8	0.7	1.8	2.4	4.1	0.9	1.2	5.9	0.8	0.5	0.4	0.8	1.2	1.1	1.2	0.91
YAL007C	1.3	0.9	0.9	1.5	0.6	0.7	1.5	1.7	1.1	0.9	2.0	1.3	2.0	1.3	2.5	0.8	1.2	1.5	1.74
YDL043C	1.0	0.8	0.8	1.2	1.1	0.5	0.9	1.3	0.8	0.8	3.9	0.9	0.8	1.2	0.8	1.2	0.8	0.8	0.78
YDL212W	1.0	1.2	1.6	1.2	1.1	0.4	0.7	0.9	0.4	0.6	2.0	0.8	0.5	1.0	1.1	0.9	1.1	1.7	4.27
YDR183W	1.2	0.7	0.9	1.4	1.5	1.4	1.8	1.8	2.5	2.9	1.8	1.1	1.4	1.9	1.4	1.3	0.8	1.0	0.61
YGL089C	0.4	0.7	2.0	1.0	1.5	0.5	0.4	1.0	0.0	1.9	2.3	0.4	0.2	1.4	0.9	0.2	0.3	0.6	3.00
YGL096W	1.9	2.9	1.2	2.5	0.9	0.5	1.8	1.7	2.1	3.6	1.7	1.1	1.2	1.4	0.8	1.7	1.1	1.1	0.54
YGR006W	1.2	1.1	0.9	2.9	0.5	0.5	1.0	1.2	0.7	0.9	1.6	0.8	1.4	1.1	1.2	1.5	0.9	1.0	0.40
YHL034C	0.7	1.0	0.7	0.8	1.9	1.1	1.4	1.4	1.9	1.9	2.2	0.8	1.6	1.0	1.4	1.6	1.2	1.5	2.11
YHR163W	0.9	1.2	1.3	1.2	0.8	1.9	0.9	1.3	1.4	1.1	2.9	0.7	1.1	1.5	0.7	1.2	1.1	1.2	1.71
YIR024C	1.5	0.9	0.9	2.0	1.1	0.8	1.5	1.4	5.6	2.9	6.3	1.1	1.6	2.6	0.9	2.2	0.9	1.4	0.75
YKL070W	1.0	0.8	1.7	0.9	1.3	1.1	1.1	1.5	15.0	11.0	10.4	0.6	1.0	2.2	0.8	0.9	1.0	0.9	0.29
YLL050C	1.4	1.0	1.2	1.7		1.9	1.4	1.3	1.0	1.0	2.3	0.9	1.8	1.2	1.6	1.3	1.2	2.1	3.43
YLR220W	0.9	0.6	3.0	1.0	0.9	0.3	0.4	1.0	0.4	0.4	2.4	0.7	0.5	1.4	0.7	1.1	0.8	0.8	2.28
YLR390W	0.9	0.9	1.2	1.7	1.2	0.7	1.5	0.8	1.7	1.7	1.9	1.0	1.1	1.1	0.5	2.0	1.0	0.9	0.51
YOL044W	1.0	1.4	1.0	1.3	1.0	1.2	1.2	1.1	1.6	1.4	2.1	0.7	1.3	1.1	0.6	1.3	1.6	1.9	0.65
YOL147C	1.6	1.1	2.4	1.5	0.7	0.9	0.6	1.5	0.5	0.7	2.8	0.7	0.8	0.9	0.8	2.4	2.0	1.7	1.09
YDR069C	1.4	0.8	3.0	1.5	1.6	0.7	1.0	1.8	1.8	4.5	0.8	0.7	1.3	1.2	1.0	1.3	1.0	1.3	0.33
YER131W	1.5	0.3	0.9	0.7	1.6	0.9	0.6	2.0	0.0	0.6	1.0	0.9	0.2	0.8	0.9	0.4	0.9	0.9	5.32
YGR044C	0.8	1.3	0.7	1.2	1.1	1.4	1.3	1.8	0.9	0.8	2.1	0.8	1.4	1.0	0.5	3.3	1.1	2.6	1.43
YMR240C	1.1	0.6	2.5	0.7	1.4	0.8	1.1	2.3	0.5	1.1	1.4	0.6	0.8	1.1	1.0	1.0	1.1	1.1	0.39
YBR105C	1.7	1.5	0.9	2.0	0.8	1.8	2.0	1.2	1.1	3.3	1.1	1.2	1.1	1.7	1.4	1.3	1.3	1.1	0.96
YBR182C	2.0	1.9	1.0	2.4	1.4	1.0	1.7	1.3	0.6	3.2	1.5	1.3	1.2	1.2	3.1	1.1	3.4	1.6	0.41
YBR186W	1.0	1.0	1.1	1.7	1.0	0.5	0.9	0.9	1.0	2.4	0.9	0.8	0.7	1.1	0.9	1.2	0.7	1.0	0.31
YEL052W	1.1	1.0	2.0	2.0	1.3	1.2	1.2	1.2	3.0	3.4	1.7	1.1	1.5	1.1	0.7	2.1	0.9	1.0	0.90
YER098W	0.9	0.9	0.5	1.1	1.4	1.6	1.3	1.7	2.8	3.3	1.4	1.0	1.1	1.3	0.9	1.7	1.2	1.5	0.35
YGL240W	0.9	1.2	0.8	1.8	1.2	1.1	1.2	0.8	2.0	3.4	0.9	0.8	1.7	1.3	1.1	1.0	1.2	0.8	0.48

Gene																			
YGR067C	2.2	1.4	1.2	4.6	1.6	1.3	1.5	1.5	0.7	6.7	1.0	0.7	1.0	0.9	1.2	1.7	1.2	1.0	0.11
YGR133W	1.0	1.1	0.7	0.6	1.3	1.2	1.2	1.2	1.3	3.6	1.6	0.9	1.2	1.4	1.0	1.5	1.0	1.0	0.35
YHR124W	1.1	1.1	1.5	2.0	0.9	0.8	1.2	1.1	3.0	6.8	1.1	1.2	1.7	2.7	0.8	1.8	1.3	1.1	0.24
YJL103C	1.3	1.8	3.8	1.3	1.1	1.0	0.7	0.8	2.3	2.4	1.5	0.8	1.4	1.0	1.3	0.9	1.4	1.2	0.44
YJR036C	1.2	1.2	1.0	4.3	1.5	0.9	1.0	1.0	1.4	3.0	1.1	0.9	1.1	1.3	1.8	2.0	0.9	1.2	0.31
YLR216C	1.2	2.3	3.3	1.1	1.2	1.2	5.2	1.3	14.1	4.1	1.8	0.7	1.2	1.1	1.2	1.5	1.2	1.3	1.44
YLR389C	0.8	6.4	2.3	0.6	0.7	0.2	1.0	1.0	2.4	2.8	0.9	0.8	1.9	0.8	1.0	1.4	1.0	1.0	0.60
YNL128W	1.3	4.6	1.1	0.8	1.2	1.1	1.0	1.3	2.9	2.4	0.9	0.9	1.4	1.4	1.1	0.6	0.9	0.9	0.21
YOL133W	1.0	1.6	1.4	1.2	0.9	1.6	1.8	1.0	4.7	3.8	1.5	0.6	1.0	1.4	1.3	2.0	1.3	1.3	0.87
YOR133W	1.1	1.3	1.6	1.3	1.3	0.9	1.1	0.8	3.1	4.9	1.3	0.8	1.3	1.1	1.8	1.3	1.2	1.2	0.26
YOR227W	1.1	2.4	3.2	0.9	0.5	1.0	1.0	0.7	2.9	3.0	1.2	1.0	1.7	1.1	3.7	2.2	0.8	1.3	0.35
YPR015C	1.3	1.3	1.5	1.7	1.1	0.7	1.3	1.2	5.6	5.3	1.0	0.7	1.5	1.5	1.6	2.0	1.0	1.0	0.32
YPR086W	1.0	1.4	0.7	0.7	1.2	1.1	1.6	1.3	3.0	2.9	1.3	0.8	1.0	1.0	1.3	1.4	1.2	1.2	1.37
YBL056W	0.7	0.7	1.1	1.2	1.8	1.6	1.4	1.3	3.6	2.2	0.7	0.9	2.7	0.9	1.0	1.7	1.1	1.5	2.49
YBR026C	1.1	1.7	2.8	0.9	1.2	0.1		1.1	3.4	1.6	1.6	1.2	1.5	1.5	0.7	0.5	0.8	0.9	0.59
YBR123C	0.8	0.7	1.6	1.8	1.1	1.3	0.9	0.9	3.2	2.5	1.1	1.0	1.4	1.1	1.0	1.2	0.8	1.0	0.62
YDR099W	0.9	1.0	2.0	1.3	1.1	2.2	1.3	1.1	2.4	1.3	1.1	0.9	1.5	0.9	1.9	1.4	1.2	1.7	3.51
YDR177W	1.2	1.7	1.0	1.0	1.0	1.4	1.3	1.6	3.5	1.9	1.3	1.2	1.7	2.4	0.8	1.3	1.3	1.5	1.77
YDR392W	0.9	2.9	1.1	1.3	1.2	0.6	1.1	1.1	4.3	1.5	1.2	0.8	1.4	1.3	1.1	1.4	1.0	1.2	0.63
YDR394W	0.9	1.2	1.3	0.8	1.2	1.1	1.2	1.3	3.8	2.0	1.8	0.6	1.0	1.2	1.1	1.0	1.1	0.8	0.97
YER184C	2.3	1.6	1.1	2.3	1.0	0.6	0.9	1.1	4.6	3.2	1.3	0.8	1.6	1.4	1.4	1.2	1.6	2.3	0.29
YFL059W	1.2	1.4	1.2	2.2	1.1	1.0	1.3	1.5	4.1	4.2	1.5	1.2	2.3	2.4	0.9	1.6	1.3	1.1	0.57
YGL185C	1.3	1.9	1.9	1.9	0.8	0.8	1.9	1.5	4.1	2.3	1.5	1.5	1.7	1.5	0.9	15.8	1.3	1.6	0.23
YHL019C	1.1	0.8	1.2	0.6	1.0	1.2	1.1	1.0	2.1	1.4	1.3	0.8	0.8	0.8	1.2	1.3	1.0	1.0	0.55
YHR012W	1.1	1.0	1.2	1.0		1.6	1.2	1.2	4.9	2.2	1.5	0.9	1.7	1.7	1.0	1.0	1.2	1.4	1.11
YHR028C	0.8	1.2	1.4	0.8	1.0	0.9	1.2	0.8	3.7	2.2	1.4	0.7	0.6	1.1	1.1	0.7	1.0	1.0	0.92
YHR109W	0.8	1.0	0.0	0.7	1.3	1.4	1.4	1.2	2.4	1.8	0.7	1.0	1.4	1.5	0.9	1.3	0.9	1.1	0.22
YHR156C	1.3	1.3	0.9	2.1	1.9	1.0	1.2	1.2	3.6	1.9	0.6	0.7	1.0	1.9	1.2	1.4	0.9	1.3	0.47
YIL159W	1.1	1.6	1.3	0.7	1.2	2.3	0.6	1.1	5.9	1.6	0.8	0.9	1.5	2.0	1.0	0.7	0.9	0.8	0.29
YJL154C	0.6	2.7	0.7	0.6	1.2	1.3	1.5	1.0	2.3	2.0	0.5	0.9	1.6	0.8	1.2	1.2	1.2	1.1	0.62
YJR110W	1.0	0.6	1.0	1.4	1.3	0.9	0.9	1.1	4.9	2.3	1.2	0.7	0.9	1.1	1.2	1.1	0.8	1.0	0.58
YKL025C	0.7	1.1	1.1	0.9	1.1	0.9	0.9	0.9	2.8	1.7	1.1	0.8	1.3	0.9	1.2	1.1	0.9	1.0	0.54

Gene																			
YKL171W	0.9	1.3	1.2	2.1	0.9	0.4	0.9	0.8	1.8	8.2	1.1	1.1	1.5	1.1	2.8	1.1	1.2	1.5	0.45
YKL196C	1.2	1.1	0.5	0.9	1.3	0.9	1.5	1.3	2.0	4.3	1.0	2.5	1.8	1.0	1.6	2.5	1.9	1.8	2.41
YKR068C	1.2	1.5	1.0	1.8	1.1	1.4	1.4	1.3	1.9	2.4	1.0	1.6	1.1	1.0	1.0	1.6	0.8	1.1	1.72
YLR144C	0.8	1.5	4.0	1.3	0.7	0.9	0.7	1.1	1.5	2.8	0.7	1.2	2.3	0.7	1.0	1.2	1.9	1.7	0.44
YML112W	1.0	1.0	1.1	2.0	1.0	1.4	0.9	1.3	2.4	3.2	1.0	1.8	1.3	0.8	1.0	1.7	0.8	0.9	0.49
YOL038W	0.9	1.0	0.4	1.6	1.8	1.2	1.4	1.4	2.7	3.5	0.9	2.1	1.8	1.1	2.0	1.5	1.7	1.6	1.29
YOR257W	1.1	2.5	0.8	1.1	1.1	0.8	1.5	1.5	1.4	3.4	0.7	1.5	0.8	1.0	1.0	2.5	0.7	1.6	0.68
YOR265W	1.4	1.0	0.8	1.0	1.2	1.4	1.4	1.4	2.2	3.5	0.8	1.6	1.8	1.3	1.3	1.6	1.2	1.1	0.93
YPL124W	1.3	1.3	0.7	0.7	1.6	0.8	1.8	1.8	1.0	2.2	0.7	1.6	0.9	0.6	0.9	1.6	0.6	0.8	0.41
YPR125W	0.6	1.3	0.9		1.2	0.7	1.2	1.2	1.8	4.1	1.1	1.6	1.9	2.0	0.9	1.6	2.0	0.6	0.73
YPR168W	0.9	1.0	0.2	0.5	1.3	0.4	1.1	1.1	2.7	4.7	0.5	1.1	1.0	1.2	1.2	1.1	1.2	1.0	0.29
YPR180W	0.9	1.2	1.6	1.0	1.0	0.8	1.3	1.3	1.1	2.3	0.7	1.2	1.3	0.5	0.5	1.6	1.3	1.0	0.61
YPR193C	1.0	2.2	0.6	1.1	0.9	1.3	1.1	1.1	4.1	3.5	0.9	1.6	1.6	0.7	0.1	1.0	0.9	1.6	0.17
YBR045C	0.9	1.0	2.2	0.7	1.4	0.8	1.0	1.0	1.1	3.6	1.3	1.0	1.3	0.9	0.4	1.0	2.0	0.8	1.29
YBR128C	1.0	1.1	2.1	1.0	1.0	1.5	1.2	1.2	1.2	2.8	0.7	1.4	1.3	1.4	1.3	1.4	1.4	2.0	0.44
YCL055W	0.7	2.2	0.7	1.3	1.1	1.4	1.3	1.3	1.5	2.1	0.9	1.8	0.9	2.0	1.4	1.8	1.5	0.7	0.66
YCR019W	1.0	1.6	1.0	0.8	1.2	1.5	1.5	1.5	1.6	2.8	1.0	1.2	1.6	1.4	2.0	1.2	0.7	1.4	0.45
YDL065C	1.2	0.9	1.0	0.7	1.4	1.1	1.4	1.4	1.5	2.4	0.6	1.4	0.7	1.3	1.4	1.4	1.3	1.5	1.08
YDL143W	0.8	0.8	1.2	1.1	1.4	1.0	1.2	1.2	1.8	2.1	1.1	0.9	1.9	1.4	1.3	1.4	1.4	0.9	1.86
YDL197C	1.0	1.1	0.9	2.1	1.0	1.2	1.0	1.0	1.5	2.6	0.8	1.1	1.4	1.3	1.1	1.3	1.3	0.9	0.31
YDL230W	1.0	0.8	1.2	1.3	1.5	0.9	0.9	0.9	1.2	2.6	0.6	1.0	1.3	1.4	0.9	1.4	1.4	1.7	0.42
YDR212W	0.8	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.7	3.5	0.8	1.0	2.0	1.2	1.8	1.2	1.2	0.7	2.13
YDR257C	0.8	5.3	0.6	0.8	1.6	1.1	1.0	1.0	1.6	3.0	0.7	1.0	1.0	1.3	1.3	1.3	1.1	1.0	0.62
YDR329C	0.9	0.8	1.0	1.7	1.9	1.2	1.2	1.2	1.0	2.5	0.8	1.1	1.1	1.0	1.0	1.0	1.0	1.6	0.95
YDR488C	1.0	0.3	0.9	0.9	0.9	0.9	0.9	0.9	0.4	2.1	0.6	0.8	1.3	3.5	0.4	0.8	0.9	0.7	0.32
YDR505C	0.8	1.0	1.0	1.4	1.2	1.1	1.4	1.4	1.0	2.5	0.7	0.9	1.6	1.1	1.0	0.9	1.5	1.6	0.84
YDR506C	0.9	0.7	1.3	0.7	0.9	0.9	1.6	1.6	1.4	1.9	0.9	0.5	0.3	1.0	1.1	0.5	0.5	0.4	1.90
YDR515W	0.9	1.1	0.8	0.8	1.5	0.8	1.9	1.9	2.7	5.8	0.8	0.8	0.7	1.6	1.0	0.8	1.3	0.5	1.02
YEL005C	1.1	1.3	0.4	1.1	1.6	1.9	0.7	0.7	1.6	2.3	0.8	1.7	1.2	1.6	1.6	1.7	0.8	1.4	0.45
YER048C	0.8	1.2	1.8	1.4	1.8	1.9	1.2	1.2	1.1	2.3	0.8	1.0	1.1	1.3	1.6	1.0	0.6	1.8	1.08
YER078C	0.9	0.8	1.4	0.8	0.9	1.4	0.9	0.9	1.5	2.3	1.0	1.0	1.5	0.9	1.3	1.0	0.9	1.0	0.49
YER089C	0.5	0.5	1.4	1.1	0.6	0.9	0.8	0.8	2.3	2.0	0.7	0.6	1.3	1.0	1.2	0.6	1.0	0.8	0.75

YER100W	0.95	0.7	1.1	1.1	1.0	0.8	0.7	0.8	1.1	1.6	2.3	1.2	0.6	0.5	0.9	0.7	0.7	1.1	1.1
YFR051C	0.53	0.9	1.1	0.8	3.0	0.8	1.5	1.2	1.3	1.4	2.5	0.8	1.0	0.2	0.5	0.5	2.2	1.1	0.5
YGL093W	0.56	1.2	0.9	1.0	1.4	0.8	0.7	0.6	1.1	1.6	4.5	0.8	0.8	1.0	0.9	0.6	1.2	0.9	0.8
YGL105W	3.01	0.9	0.8	1.0	0.9	1.1	1.0	1.1	1.4	1.4	1.8	1.2	0.7	1.5	1.3	0.8	1.1	0.8	0.9
YGL166W	0.73	1.9	2.1	1.2	0.9	1.1	1.9	1.1	1.0	2.4	1.8	1.2	1.5	1.0	1.3	1.5	0.6	1.4	1.0
YGL215W	1.31	0.9	0.7	1.2	1.0	0.8	1.0	0.7	0.8	1.8	2.2	0.7	1.0	0.9	1.0	0.9	1.2	1.2	0.7
YGL216W	0.37	0.9	1.1	0.8	1.1	1.0	1.4	1.0	0.5	0.5	2.6	1.0	1.0	1.5	1.2	1.0	0.8	1.3	0.7
YGL221C	1.64	1.4	1.3	1.3	0.7	1.7	1.7	1.1	1.4	1.9	3.4	1.6	1.3	2.2	0.9	1.1	1.0	1.2	1.1
YGR186W	0.79	1.2	0.9	1.4	1.3	1.1	1.1	0.6	1.0	1.9	2.6	1.3	1.3	0.7	1.5	1.1	0.4	0.7	0.9
YGR270W	0.51	0.9	1.1	1.0	1.6	0.9	1.3	0.8	0.7	1.3	2.3	0.9	0.9	0.9	0.7	0.8	0.8	1.0	0.9
YGR274C	0.62	1.0	1.1	0.7	1.2	0.8	1.1	0.7	0.9	1.8	2.2	1.2	1.3	0.7	1.8	0.9	0.3	0.5	0.7
YHR082C	0.60	0.9	1.0	0.7	1.4	0.9	1.7	0.7	0.9	1.7	2.6	0.8	1.1	0.8	1.6	0.9	1.6	1.1	0.7
YHR160C	0.32	1.5	1.2	4.4	2.1	1.2	1.8	0.8	-0.2	1.6	2.3	1.2	1.1	1.0	1.0	1.6	1.6	0.5	1.0
YHR171W	0.41	1.5	0.9	1.6	0.7	1.0	1.3	0.8	1.2	1.6	2.1	0.9	1.9	2.0	1.3	1.2	1.1	0.8	1.2
YHR205W	0.34	0.8	1.1	0.8	1.5	0.9	1.7	0.9	0.9	0.6	2.0	0.5	0.7	1.0	1.3	0.8	0.6	1.3	0.7
YIL062C	1.72	1.1	0.8	0.4	0.9	2.0	1.1	0.8	1.7	2.3	2.8	1.1	0.4	0.9	1.2	1.2	1.3	1.0	1.1
YIL075C	1.54	0.8	1.7	0.8	1.6	0.8	0.7	0.8	0.8	2.3	1.9	0.7	0.8	0.8	1.1	0.6	1.5	0.7	0.5
YIR009W	0.48	1.0	1.6	1.0	1.1	1.6	0.8	0.7	1.1	1.5	2.6	1.3	1.3	1.4	1.5	2.8	0.9	0.8	0.8
YIR018W	0.44	1.1	1.2	1.0	1.5	1.2	1.5	1.1	1.2	2.1	4.0	1.5	1.5	2.0	1.4	1.1	0.9	1.0	1.2
YJR091C	0.57	0.9	1.1	0.7	1.4	0.8	1.4	0.8	1.8	2.3	2.4	0.8	1.1	0.8	1.4	1.4	2.6	1.2	0.8
YKL079W	0.64	1.2	1.5	1.6	1.1	0.9	1.2	0.9	1.3	2.0	2.3	1.2	1.7	0.8	1.4	1.0	1.5	0.8	0.9
YKR102W	0.19	0.9	1.0	1.5	1.1	1.8	2.7	0.8	3.3	1.4	2.4	0.7			0.9	0.8	1.4	1.6	0.8
YLL054C	0.33	1.0	1.1	0.9	0.9	1.2	1.7	0.7	0.5	1.4	2.4	1.1	1.1	1.9	1.4	1.2	0.5	0.6	1.2
YLR200W	1.12	1.5	1.1	1.2	0.9	2.3	1.3	0.9	1.1	2.6	2.2	1.4	1.9	1.2	1.7	1.2	0.5	0.9	1.4
YLR248W	1.58	1.7	0.8	1.7	1.2	0.9	1.2	0.7	1.0	1.1	2.3	1.1	1.2	1.2	1.9	1.4	1.1	0.7	0.9
YLR266C	0.74	1.4	0.8	1.7	0.8	1.0	1.3	1.0	1.1	2.6	2.2	1.1	1.6	1.0	0.7	1.5	0.7	1.3	0.9
YML088W	0.58	0.8	0.9	0.8	1.4	1.1	1.3	1.0	0.5	2.2	4.0	1.1	1.1	0.7	1.5	0.5	0.3	1.6	0.9
YMR091C	1.03	1.2	1.5	1.3	0.9	1.5	0.9	0.8	0.9	1.3	2.1	1.3	0.8	0.8	0.7	1.0	0.8	0.7	1.0
YMR110C	1.63	2.5	1.5	2.7	0.9	0.8	1.8	0.9	1.6	1.6	2.3	0.9	1.9	2.1	1.3	1.9	1.8	1.4	1.0
YMR255W	0.97	2.0	0.9	1.3	1.0	1.6	1.1	0.9	1.2	2.4	2.8	1.4	1.5	0.9	1.3	1.8	0.7	1.4	1.2
YNL039W	0.61	1.1	1.3	1.3	1.3	0.8	0.8	0.9	0.4	1.8	2.1	1.2	1.1	0.8	2.1	0.4	0.3	0.8	0.7
YNL077W	0.78	1.0		0.6	0.3	0.5	1.5	0.7	1.0	5.1	4.4	1.0	1.2	0.9	1.5	1.2	2.3	1.1	1.5

Gene																			
YNL083W	0.37	1.1	0.8	1.8	0.8	0.9	1.2	0.9	0.9	1.6	3.1	1.1	0.9	0.7	0.8	1.2	1.3	1.4	0.8
YNL147W	1.32	1.6	1.0	1.7	1.2	2.0	1.0	0.8	1.2	2.9	2.1	1.8	1.4	1.5	2.0	0.7	0.6	2.4	1.3
YNR006W	0.40	1.2	1.8	1.1	1.2	0.9	1.6	0.9	0.8	2.3	2.2	0.9	1.5	0.9	1.5	0.9	0.5	1.8	1.1
YNR034W	0.64	1.1	0.7	2.3	1.1	0.9	1.4	0.9	1.3	2.1	3.0	1.0	1.3	0.9	1.0	1.6	5.3	1.4	0.9
YNR047W	0.44	1.0	0.9	1.5	1.2	0.9	1.5	0.9	0.6	1.2	2.0	0.8	1.0	1.0	1.1	0.5	1.7	1.0	0.7
YOR023C	0.37	0.8	1.1	0.8	1.6	1.7	1.9	1.1	0.9	1.3	3.5	0.6	1.1	1.8	1.2	0.8	1.3	1.2	0.7
YOR058C	0.31	1.0	0.9	1.6	1.1	1.3	1.7	0.7	1.4	4.5	6.4	1.7	0.8	0.9	0.9	0.6	2.0	1.4	2.0
YOR069W	0.69	1.1	0.8	1.5	1.4	1.0	1.1	0.9	2.8	1.4	1.9	1.1	1.2	0.5	1.0	1.3	0.7	1.6	0.8
YOR229W	0.58	1.0	0.9	0.9	1.2	1.1	1.3	0.8	0.7	0.8	2.5	0.8	1.1	1.3	1.5	0.8	1.0	0.9	0.9
YOR256C	0.53	1.5	1.2	1.5	1.1	1.1	1.6	0.7	1.7	1.8	2.7	1.1	1.4	0.9	1.7	1.5	0.9	0.8	1.0
YPL020C	0.91	1.4	1.3	1.2	1.6	0.6	1.1	0.9	1.1	1.6	2.3	1.1	1.1	0.8	0.8	1.3	0.7	0.7	1.1
YPL105C	0.80	0.6	0.8	0.5	1.1	1.2	1.0	0.7	0.6	1.4	3.4	1.0	0.7	1.2	1.1	0.7	0.6	0.8	0.6
YPR066W	0.41	1.2	1.1	1.6	0.7	1.1	1.4	0.8	0.9	1.9	2.3	0.8	1.3	0.7	1.3	2.2	1.1	2.2	1.2
YPR081C	0.34	1.3	0.9	1.8	1.3	1.4	1.4	1.0	0.9	2.6	4.2	1.0	1.1	1.1	0.8	1.1	1.0	1.0	0.9
YPR140W	0.47	1.3	0.8	2.4	1.7	1.2	1.3	0.8	0.8	1.3	2.1	1.1	1.9	3.0	0.9	1.8	0.8	1.2	0.9
YPR155C	0.40	1.6	0.8	3.4	0.5	1.0	1.3	0.9	0.9	1.3	2.0	1.0	1.4	0.9	0.9	1.4	1.5	2.5	0.9
YPR185W	0.68	1.1	1.3	1.3	1.1	1.2	1.7	0.8	0.9	1.7	2.5	1.0	1.2	0.9	1.1	0.4	0.3	0.9	0.7
YBR076W	0.36	1.2	1.4	0.5	1.1	2.1	1.9	0.9	0.8	1.8	0.4	0.7	1.0	0.8	0.9	5.0	1.4	1.1	2.3
YDR373W	1.08	1.6	1.2	1.4	1.6	1.0	1.0	0.5	1.7	2.8	2.5	1.9	1.4	0.9	1.8	1.3	0.5	0.8	1.7
YFR014C	0.94	2.9	1.2	2.3	0.6	1.7	1.3	0.9	1.8	1.6	1.0	1.3	1.4	0.8	0.7	2.6	0.8	2.4	2.1
YHR136C	1.33	2.5	1.6	1.3	0.5	0.9	0.3	1.2	2.0	2.0	0.1	1.3	0.5	1.4	2.4	2.1	1.4	13.6	2.4
YIL129C	0.25	0.8	1.3	1.0	1.0		1.9		1.5	1.8	2.1			0.3		1.2	1.0	5.8	0.8
YMR077C	0.59	1.3	0.9	2.3	1.7	1.6	0.8	0.9	1.5	2.5	1.9	1.7	1.4	0.5	1.0	1.8	1.1	3.9	1.1
YBR264C	0.61	1.3	0.9	1.8	1.1	1.6	0.9	1.0	1.0	1.1	0.9	1.2	1.3	0.9	0.7	1.5	1.5	3.7	1.2
YPL177C	0.75	1.1	1.2	1.9	0.6	1.3	0.8	0.8	1.4	1.0	0.5	1.3	0.8	0.8	0.7	1.3	0.7	3.7	1.2
YGL056C	0.47	1.1	0.9	1.5	1.2	1.1	0.8	0.4	0.0	0.6	0.4	0.9	1.0	0.4	0.6	1.0	1.6	3.5	0.7
YBL101W-A	1.24	1.2	1.3	1.1	2.1	1.5	2.0	1.4	1.2	2.1	1.2	1.5	1.3	1.4	1.0	0.6	0.9	5.7	1.0
YER072W	1.69	1.7	1.7	1.1	0.9	1.5	0.6	1.5	1.7	1.1	0.5	1.2	0.7	1.5	1.2	1.3	1.3	2.3	1.6
YMR112C	0.57	1.6	1.1	1.4	0.9	1.8	0.9	0.7	0.9	1.3	1.4	1.6	1.5	0.7	1.0	1.2	0.9	4.2	1.2
YJR058C	1.00	1.2	1.3	1.2	0.8	1.8	0.8	1.0	1.2	2.6	1.9	1.2	1.3	1.6	1.1	1.5	1.3	2.0	1.3
YML055W	1.08	1.5	1.2	1.4	0.6	1.9	1.7	1.0	1.4	1.4	1.0	1.7	1.7	1.2	0.9	2.0	0.6	2.3	1.7
YDR080W	0.68	1.3	1.2	1.7	1.2	1.1	2.0	1.0	1.2	2.6	1.7	1.2	1.6	1.5	1.2	0.6	0.5	1.8	0.9

YNR030W	0.6	2.1	2.2	0.7	0.8	1.2	1.0	0.6	1.0	1.4	1.2	0.8	1.5	0.6	1.1	0.4	0.9	0.8	1.19
YNL196C	1.1	1.8	1.4	1.3	0.9	1.2	1.0	0.7	0.5	2.2	0.7	1.0	2.2	1.2	0.8	2.1	1.1	1.2	0.50
YOR148C	1.4	1.4	0.5	1.8	0.9	0.9	1.2	1.5	0.8	0.8	1.3	0.9	1.4	1.4	1.0	1.3	1.0	1.3	1.08
YER029C	1.0	1.6	0.4	1.9	1.7	1.2	1.1	1.5	1.4	1.1	0.8	0.9	0.9	1.4	1.1	1.7	0.9	1.3	1.20
YLR360W	0.9	2.0	0.5	0.7	1.9	1.4	1.7	1.3	0.9	1.3	0.9	0.9	0.7	1.1	0.8	2.1	1.2	1.4	0.53
YGR239C	1.3	1.3	0.7	1.3	1.2	2.3	1.2	1.5	0.5	3.8	1.4	1.0	1.0	1.4	1.3	1.1	1.1	1.3	0.49
YDL229W	0.9	1.9	0.4	0.6	1.2	1.0	1.3	1.2	1.4	0.9	1.6	0.9	1.0	1.3	1.2	1.0	1.2	1.1	0.76
YJR027W	0.8	1.9	0.8	0.7		1.5	2.0	1.0	1.2	1.3	1.1	0.8	1.3	1.1	2.3	0.7	0.7	1.1	4.88
YKL198C	1.2	1.4	0.8	0.2	0.9	1.0	1.2	0.6	0.0	0.8	1.4	0.7	1.9	6.6	2.6	0.7	1.0	0.8	0.17
YBR031W	1.1	0.8	4.1	1.4	1.4	0.7	0.5	1.0	0.1	1.0	0.9	1.0	0.3	0.4	0.9	0.7	1.0	0.8	7.58
YBR118W	1.3	0.8	2.9	1.2	1.0	1.3	1.0	1.3	0.5	0.9	1.0	0.8	0.8	0.7	1.6	0.6	1.2	0.9	8.91
YCR106W	0.9	1.1	2.8	1.1	0.8	1.4	0.9	0.8	2.0	1.2	1.2	0.8	1.2	0.8	1.3	1.2	1.1	1.2	0.76
YDR012W	0.9	0.8	3.9	1.2	1.1	0.9	0.5	1.1	0.3	0.7	0.9	1.2	0.2	0.4	0.8	0.7	1.0	0.7	7.07
YDR134C	1.0	0.7	3.9	1.9	0.8	1.1	0.4	0.6	0.1	0.5	1.9	0.6	0.4	0.5	0.8	0.9	0.7	1.1	5.84
YDR276C	1.5	1.6	6.1	1.4	0.7	1.1	1.0	1.1	1.1	2.7	1.4	0.9	1.1	1.3	2.2	3.6	1.3	2.4	2.48
YGR279C	0.9	0.7	3.6	1.0	1.2	1.6	0.8	0.6	0.3	0.7	0.9	0.7	0.3	0.4	1.3	0.8	1.0	0.8	3.77
YJL059W	1.0	1.7	3.1	0.8	0.9	1.6	1.1	0.8	1.7	1.6	1.8	1.0	1.6	1.3	0.9	0.6	1.1	1.0	0.39
YKL056C	1.3	0.7	2.6	1.4	1.7	0.9	0.5	1.0	0.1	0.7	1.1	0.8	0.1	0.7	0.9	0.6	0.8	1.2	6.68
YKL097W-A	1.5	1.3	4.2	1.3	1.2	0.9	0.2	0.7	0.0	0.4	1.6	0.7	0.2	0.6	2.0	0.8	1.1	1.4	4.01
YNL209W	0.9	0.9	2.7	0.9	1.3	0.9	0.5	1.1	0.2	0.8	0.9	0.9	0.5	0.6	0.9	0.3	0.6	0.6	8.06
YNL307C	0.8	0.6	3.1	1.3	1.0	1.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	0.7	0.6	1.0	1.0	1.3	2.79
YPR028W	1.0	1.1	4.0	1.7	1.0	1.4	0.8	0.7	0.5	0.8	1.4	0.6	1.7	0.8	0.9	1.3	1.2	1.7	4.06
YPR149W	1.0	1.1	5.9	1.7	1.7	1.6	2.1	0.6	1.2	1.8	1.1	0.7	1.4	1.3	1.0	2.2	1.1	1.1	2.65
YAL016W	0.8	1.0	2.8	0.9	0.9	0.9	1.1	1.0	1.2	1.9	0.9	0.8	1.4	0.9	1.1	1.1	0.8	1.3	1.00
YBR283C	0.6	0.7	1.9	1.2	1.4	2.2	0.8	0.8	1.5	1.2	2.0	0.8	0.8	0.6	1.4	0.9	0.9	0.9	2.62
YBR286W	0.7	1.4	3.8	1.2	1.3	1.5	1.3	0.9	1.2	1.6	1.0	1.1	1.8	1.5	1.3	2.6	0.8	1.6	2.98
YCL008C	0.8	1.1	1.8	1.2	1.2	0.9	0.9	0.7	0.9	1.4	0.9	0.9	1.0	0.9	1.4	0.6	0.9	0.9	0.47
YCR069W	1.0	1.2	2.0	0.9	1.1	1.4	1.1	0.7	0.8	0.7	1.3	1.4	1.6	1.0	2.4	1.2	1.2	1.3	0.97
YDL061C	1.4	0.5	2.9	0.9	1.3	1.1	0.5	1.0	0.0	0.5	1.4	1.0	0.1	0.7	1.0	0.6	1.1	1.0	4.40
YDR151C	1.3	1.0	2.3	1.8	0.8	0.7	0.8	1.5	2.6	2.8	2.1	0.9	2.8	1.1	0.6	1.2	0.8	1.1	0.96
YDR382W	1.3	0.5	2.4	1.2	1.1	0.6	0.4	1.2	0.0	0.4	1.2	0.7	0.1	0.7	1.1	0.4	1.0	1.0	6.40
YDR385W	0.6	0.4	3.5	0.9	1.1	0.5	0.4	0.7	0.2	0.5	0.9	0.9	0.3	0.5	0.8	0.3	0.6	0.4	7.27

Gene																			
YDR407C	0.7	1.0	2.0	0.7	0.8	1.2	1.4	0.9	1.5	1.7	1.2	1.0	1.3	0.8	1.3	1.0	0.9	0.9	0.52
YGL206C	0.4	3.5	2.0	0.5	0.6	0.8	0.8	0.5	0.7	0.7	0.9	0.7	1.1	0.8	1.3	0.6	0.8	1.0	1.04
YGR172C	0.6	1.3	2.5	1.3	0.6	0.9	1.0	0.8	0.4	1.1	0.8	0.8	0.7	1.1	1.9	1.0	1.1	1.1	0.94
YIL015W	1.1	1.7	2.0	2.5	0.9	0.4	0.9	0.9	0.3	1.1	0.8	0.9	0.8	5.9	1.1	0.8	0.8	1.0	0.17
YIL018W	1.0	0.4	2.3	1.4		0.9	0.4	0.8	0.0	0.3	1.2	0.6	0.0	0.6	0.6	0.4	0.8	0.8	6.27
YJL138C	1.0	0.7	2.3	1.4	0.9	0.8	0.8	1.2	0.2	0.7	1.2	0.8	0.3	0.7	0.9	0.6	0.9	1.0	7.38
YJL191W	1.0	0.4	2.2	0.7		1.3	1.0	0.8	0.0	0.4	1.1	1.0	0.9	1.1	0.7	2.2	1.0	1.0	1.86
YJR047C	1.1	0.8	2.6	1.1	1.1	1.1	0.4	0.9	0.7	0.5	1.1	0.9	0.9	0.9	0.6	0.8	0.8	0.9	5.29
YJR119C	0.9	1.0	2.0	1.0	0.9	1.4	1.1	1.6	0.5	1.3	0.9	0.9	1.2	1.3	1.5	1.0	0.7	0.9	0.30
YJR123W	1.2	0.6	2.2	1.0	1.3	1.0	0.4	1.2	0.0	0.5	0.8	0.8	0.1	0.6	1.1	0.4	0.8	0.9	7.84
YJR145C	0.8	0.7	2.3	1.3		0.4	0.4	1.0	0.0	0.4	3.2	0.6	0.0	0.6	0.8	0.5	0.8	0.9	4.82
YLR110C	1.4	0.8	2.7	1.2	1.7	0.9	0.4	0.8	0.3	0.8	0.8	0.7	0.5	0.5	1.7	0.8	0.9	1.1	3.99
YLR264W	1.1	0.4	2.2	1.0	1.1	0.7	0.4	1.0	0.0	0.3	1.4	1.1	0.3	1.2	1.2	0.5	1.0	1.1	3.91
YLR340W	0.8	0.4	2.6	1.0	0.6	0.7	0.3	0.9	0.0	0.5	1.0	0.9	0.1	0.5	1.3	0.2	0.9	0.7	6.55
YLR388W	1.6	0.4	1.9	1.0	2.5	0.7	0.5	1.2	0.2	0.7	1.2	0.6	0.1	0.8	0.6	0.5	0.8	1.0	4.48
YMR092C	0.6	1.2	1.9	1.3	0.8	0.9	1.2	0.9	1.5	1.7	0.9	0.9	1.7	0.8	1.1	1.2	0.9	1.3	1.43
YMR101C	1.1	1.8	1.9	2.9	0.9	0.4	0.9	0.8	-4.0	1.6	-0.3	0.7	0.8	1.1	1.0	0.9	0.7	0.8	0.16
YNL069C	1.2	0.3	2.8	2.3	0.7	0.4	0.3	1.0	0.0	0.4	1.0	0.6	0.1	0.9	1.0	0.3	0.8	0.6	4.03
YNL135C	1.1	0.9	2.0	1.4	1.7	0.9	0.8	0.5	0.7	0.5	0.7	0.8	0.9	0.5	1.0	1.4	1.2	1.7	3.05
YOL039W	1.2	0.3	3.9	0.7	1.3	0.4	0.3	1.0	0.0	0.9	1.0	0.7	0.1	0.5	0.8	0.4	0.7	0.7	4.94
YOL120C	1.0	0.3	2.3	0.8	1.5	0.3	0.4	0.8	0.0	0.3	1.6	0.7	0.1	0.6	0.6	0.3	0.6	0.8	4.42
YOR230W	1.2	2.3	3.0	1.0	0.9	1.1	0.6	0.6	0.6	0.7	0.1	1.4	1.5	0.7	0.6	1.6	1.2	1.6	1.76
YOR298W	0.9	0.9	3.2	0.5	1.5	0.9	0.6	0.7	0.6	1.0	1.7	0.7	1.1	2.1	1.2	0.5	1.0	0.8	0.41
YPL048W	0.7	0.7	2.6	1.2	0.7	0.6	0.6	0.8	1.6	0.6	1.1	1.0	0.9	0.6	1.5	1.3	1.2	1.0	2.11
YPL179W	1.0	1.5	2.4	1.0	1.1	1.6	1.2	0.8	1.2	1.1	1.1	1.0	1.3	0.8	1.2	1.4	1.3	1.3	1.38
YPL218W	1.5	0.9	2.5	1.7	1.1	1.5	1.3	1.4	1.1	1.2	1.1	1.2	1.0	1.5	1.1	1.7	1.1	1.8	2.98
YPL220W	1.3	0.9	2.3	1.4	1.1	1.3	0.6	1.2	0.0	0.5	1.0	0.5	0.1	0.6	0.6	0.5	1.1	1.1	8.33
YPR080W	1.3	1.3	2.8	1.2	1.4	1.4	0.9	1.3	0.7	1.1	1.3	1.0	1.3	0.6	1.5	0.6	1.1	1.0	8.03
YPR181C	0.5	0.8	2.3	0.6	1.0	2.0	1.3	0.5	1.0	0.7	1.2	1.0	1.7	2.4	1.5	1.6	1.8	1.6	1.84
YBR290W	1.3	1.4	0.8	3.0	1.0	1.1	1.4	1.5	2.0	1.8	0.8	1.0	1.7	1.4	0.9	1.3	1.2	2.1	1.34
YCR091W	1.3	1.1	0.6	2.2	1.3	1.3	1.3	1.1	0.8	1.2	1.3	1.1	1.3	1.3	0.7	2.7	1.3	1.4	0.22
YFL026W	1.0	0.8	1.2	5.0	1.4	1.0	1.2	1.3	0.6	1.5	1.3	0.8	1.1	1.1	1.0	1.0	1.0	1.0	0.27

Gene																			
YOR003W	0.9	1.1	1.3	3.3	1.6	1.1	1.1	0.9	1.6	1.3	0.7	0.8	1.0	1.2	2.8	1.3	1.0	1.1	0.30
YCR038C	0.9	1.1	0.9	2.5	0.9	0.9	0.9	0.9	0.7	0.7	1.1	0.8	1.0	1.1	0.7	1.0	0.9	1.1	0.31
YDL119C	1.0	0.8	0.6	2.2	0.9	0.6	1.3	1.1	1.3	1.1	1.5	0.9	1.1	1.2	0.5	1.2	1.0	1.0	0.77
YDL220C	0.9	1.3	1.1	1.6	1.2	1.8	1.1	0.8	0.2	1.3	0.8	1.0	1.6	0.9	1.6	0.8	1.1	0.9	0.24
YDR125C	1.1	0.9	1.0	1.7	1.1	0.8	1.0	1.2	0.7	1.9	1.0	0.8	0.9	1.0	0.8	1.7	0.9	1.2	0.35
YDR225W	1.0	0.6	0.6	1.6	1.9	0.5	0.4	0.8	0.3	0.7	2.7	0.4	0.2	0.8	0.1	0.8	1.1	1.8	5.54
YER066W	0.9	0.7	0.9	2.1	1.5	1.3	1.3	0.7	1.7	1.4	1.5	0.7	0.9	1.1	0.5	3.3	1.1	1.1	0.66
YER076C	0.8	0.9	1.2	1.9	1.1	0.6	0.8	0.7	0.2	1.2	0.7	0.7	1.1	0.9	0.8	1.3	1.0	1.0	0.33
YFR006W	0.9	1.8	1.1	3.4	0.7	0.8	1.4	1.0	-1.6	0.7	1.2	1.0	0.9	0.9	0.8	1.2	0.9	1.3	1.54
YGL208W	0.9	1.8	1.1	2.2	0.7	0.6	1.1	0.7	1.4	1.3	1.3	0.8	1.5	0.9	1.8	3.1	0.8	1.3	0.32
YGR023W	1.0	0.9	1.1	4.2	1.0	1.2	1.0	1.2	1.2	3.2	2.4	0.9	1.4	1.3	1.1	0.9	1.2	1.5	0.69
YGR108W	0.9	3.9	0.3	3.6	0.8	0.1	0.3	0.5	0.0	0.1	0.5	0.4	0.3	0.8	0.2	0.4	0.7	1.0	0.93
YHR195W	1.1	1.5	0.6	2.4	1.5	1.0	1.3	1.6	1.8	0.8	1.4	0.9	1.2	1.2	0.7	3.7	1.0	1.5	1.12
YIL050W	1.0	1.3	1.3	2.4	0.9	0.7	1.1	1.2	1.3	1.9	0.9	1.0	1.0	1.3	0.6	2.7	1.0	1.1	0.52
YJR050W	1.0	0.6	0.7	2.1	1.2	1.4	1.1	1.8	2.0	1.3	0.8	0.8	1.9	1.3	0.9	1.5	0.9	1.1	0.85
YKL093W	1.0	1.6	1.4	3.6	0.8	0.8	0.7	0.9	1.5	1.6	0.9	0.9	1.2	1.1	0.8	2.9	0.8	1.0	0.38
YMR053C	1.1	1.0	0.8	2.1	0.9	1.3	0.9	1.0	2.2	1.4	1.3	0.9	1.5	1.3	2.4	2.3	1.1	1.6	0.31
YNL139C	0.8	1.1	0.8	2.0	1.9	1.0	1.0	0.9	0.6	0.7	0.8	0.5	1.2	0.7	1.4	1.1	1.1	1.0	0.47
YOR122C	1.0	0.7	1.8	1.9	1.7	1.3	1.2	1.0	1.1	0.9	1.5	0.8	1.0	1.2	1.6	1.5	1.0	2.2	3.06
YOR312C	1.2	0.4	1.0	1.9	0.7	0.6	0.6	1.2	0.0	0.3	0.8	0.7	0.1	0.7	0.7	0.5	1.2	1.0	5.24
YOR327C	2.3	1.8	0.5	1.9	1.0	1.4	1.4	1.9	1.4	2.2	2.1	1.0	2.1	1.5	0.9	1.5	2.2	2.1	1.46
YPL001W	0.9	0.9	1.0	2.5	1.7	0.7	1.0	1.2	0.7	1.0	1.3	0.7	0.8	1.3	1.3	0.8	0.9	1.2	0.74
YPL230W	1.2	1.7	1.8	4.0	0.8	1.0	1.1	1.0	0.9	2.7	3.1	1.0	2.0	1.3	0.7	2.0	1.0	1.6	0.47
YER025W	0.6	0.7	0.6	0.6	1.5	1.0	1.5	1.1	0.4	0.6	1.2	0.7	0.6	2.1	1.4	2.6	1.8	2.3	1.96
YHR185C	0.9	1.1	1.4	0.7	1.4	1.0	1.3	0.8	-0.6	0.9	0.7	0.8	0.4	1.7	1.6	3.2	1.4	3.0	1.64
YIL076W	1.3	0.6	1.1	1.0	1.8	1.7	0.5	1.3	1.0	1.4	1.1	0.8	0.8	1.4	1.0	0.8	1.2	2.5	3.73
YMR238W	1.9	1.3	1.1	1.3	1.5	1.2	1.2	0.9	1.3	1.4	1.2	1.0	1.5	1.2	2.3	1.4	2.2	2.4	1.36
YBR009C	1.6	1.0	0.4	1.7	1.4	1.0	0.5	1.2	0.6	0.6	0.8	0.5	0.4	1.1	0.2	0.4	1.0	2.4	7.00
YBR010W	1.0	0.8	0.5	2.0	0.8	1.1	0.8	1.3	0.5	0.7	1.0	0.7	0.4	1.0	0.3	0.8	1.1	2.3	7.25
YCL067C	1.2	1.1	0.3	1.7	1.1	1.7	1.3	1.7	1.4	1.9	1.6	1.0	1.4	2.1	2.2	1.7	0.8	2.2	3.15
YCR096C	1.1	0.9	0.4	1.6	2.1	1.2	1.7	1.5	1.2	1.6	1.4	1.0	1.0	2.1	2.1	1.8	1.0	2.1	2.34
YDL137W	1.4	1.1	1.2	1.2	1.8	1.0	2.0	1.1	1.1	1.3	1.5	1.6	1.7	1.4	1.3	2.3	1.3	2.2	4.95

Gene																			
YDL192W	5.57	2.3	1.1	1.3	1.3	1.2	0.9	1.1	1.3	0.6	0.8	1.5	1.7	1.0	1.4	1.2	0.6	1.0	1.4
YDR224C	5.62	2.2	1.2	1.1	0.3	1.7	0.5	0.7	1.1	1.3	1.1	1.4	0.8	1.0	1.2	0.9	0.8	0.7	1.1
YDR378C	2.40	2.2	1.7	1.0	0.8	1.4	0.8	0.9	0.8	1.3	0.5	1.5	1.4	1.0	1.0	1.3	1.4	1.3	1.3
YMR197C	1.20	2.2	1.2	1.9	1.7	4.1	1.5	1.1	1.0	2.5	1.9	1.4	1.5	1.6	1.1	1.9	1.4	1.6	1.3
YOL109W	4.13	2.2	1.6	0.8	1.0	1.4	0.5	0.8	1.0	1.1	0.1	1.5	1.2	1.3	1.0	1.8	1.5	2.0	2.0
YPL010W	3.25	2.0	1.3	1.3	1.2	1.3	1.1	1.1	1.3	1.5	1.7	1.5	1.9	1.0	1.4	1.0	0.9	1.1	1.0
YHR132C	1.52	1.3	0.8	2.3	1.4	0.9	1.2	0.8	1.1	1.1	0.9	0.8	0.8	0.7	1.0	1.4	1.7	0.7	0.8
YJL141C	0.94	1.6	1.4	2.2	0.8	0.8	1.4	0.8	1.2	1.3	1.2	0.9	1.1	1.1	1.5	1.6	1.0	0.8	1.0
YKR098C	0.55	1.6	1.1	3.9	0.9	1.4	1.4	1.1	1.9	2.7	1.4	1.3	1.7	1.8	1.1	1.7	1.2	1.1	1.0
YLP206W	0.72	1.2	1.1	2.3	2.4	0.8	1.4	0.8	1.3	1.0	1.5	0.8	0.7	0.5	1.1	1.1	1.4	1.6	0.7
YAL055W	0.62	1.3	1.3	2.6	1.1	1.6	1.5	1.2	1.3	1.4	1.0	1.9	1.5	1.3	1.4	1.0	0.9	1.0	1.2
YAR062W	0.32	1.0	0.9	2.4	1.3	1.1	1.2	0.8	-1.1	0.9	0.4	0.9	1.3	0.6	1.0	0.7	1.4	1.8	1.2
YBL102W	1.26	1.5	2.4	2.0	1.1	1.1	1.7	0.9	1.2	1.1	2.3	0.8	1.6	2.5	0.9	1.2	1.4	1.0	1.2
YBR161W	0.72	2.2	1.5	2.1	1.5	0.9	1.0	0.6	1.1	0.4	0.4	0.9	3.0		1.1	0.7	2.3	0.8	1.2
YCR039C	1.73	2.1	1.0	2.1	1.9	1.7	1.0	0.8	1.2	2.2	1.8	1.6	1.4	1.5	1.9	0.9	0.3	2.1	1.9
YDL018C	0.84	1.7	1.5	3.1	1.1	1.5	1.0	0.7	0.9	1.0	1.0	1.3	1.2	1.4	1.8	1.1	0.9	0.9	1.3
YDR022C	0.47	1.2	1.3	2.1	1.0	2.1	1.3	0.7	0.9	1.4	0.9	1.4	1.8	2.2	1.5	0.9	0.8	1.2	1.1
YDR181C	0.48	1.2	0.8	2.0	1.2	1.3	0.7	0.7	0.8	0.9	2.0	1.2	1.0	0.7	0.9	1.4	0.8	1.2	1.1
YGR036C	1.12	1.1	1.3	2.0	0.7	1.0	1.3	1.0	0.9	0.9	0.9	0.8	1.0	1.3	1.3	1.1	0.9	0.8	0.9
YGR120C	0.36	1.2	1.1	1.9	1.2	1.0	0.5	0.7	1.1	1.2	0.3	1.3	1.6	1.5	1.8	1.0	0.5	1.8	1.2
YGR131W	0.41	1.0	1.3	2.6	0.8	2.0	1.4	0.5	1.1	5.8	1.9	1.1	1.1	1.9	0.9	1.1	1.9	2.1	0.8
YGR167W	1.79	1.7	1.3	2.8	1.6	1.7	1.6	1.1	1.1	1.9	1.4	1.4	1.4	1.7	0.9	1.5	0.6	1.1	1.1
YHL024W	0.58	1.4	1.4	3.8	2.9	2.1	1.6	1.6	1.1	3.6	2.1	0.8	1.3	1.2	1.5	1.1	1.6	0.8	1.2
YJL113W	0.41	1.5	0.9	2.1	1.7	1.3	0.9	0.7	1.2	2.1	1.3	1.3	1.2	0.7		1.2	1.2	1.9	1.2
YJL146W	0.30	1.3	1.0	1.8	1.2	1.5	0.8	1.1	-1.1	1.7	1.0	1.0	1.3	0.7	0.8	2.0	1.2	1.9	1.3
YJR019C	0.33	1.4	1.8	2.6	1.1	0.8	1.4	1.1	2.4	0.6	1.1	0.7	0.9	0.7	1.1	1.6	1.9	1.8	0.8
YJR049C	0.44	1.2	0.9	1.7	1.2	1.2	2.1	1.0	1.6	1.4	1.4	1.2	1.0	0.8	0.7	1.0	1.0	1.2	1.0
YLR078C	1.02	1.2	1.2	2.2	0.6	1.2	0.8	1.0	2.9	1.1	0.8	1.1	1.2	0.6		1.4	0.7	1.1	0.9
YNR037C	1.34	1.6	1.4	1.9	0.8	1.2	2.0	0.7	1.5	1.7	1.3	1.1	1.7	0.8	1.2	1.7	0.9	0.9	0.9
YOR028C	0.78	1.7	0.8	3.7	1.1	1.3	0.8	0.6	1.5	2.0	1.2	1.5	1.2	1.0	1.6	2.3	1.1	0.7	1.4

　　機能未知の酵母遺伝子２４００のうち約７００が重金属、農薬、界面活性剤等の毒性を有する化学物質いずれかによりｍＲＮＡの発現が誘導され（表１）、ミトコンドリア局在タンパク質遺伝子１６７（表２）、遺伝子修復系タンパク質遺伝子５２（表３）、エネルギー系タンパク質遺伝子１６１（表４）、トランスポート促進タンパク質遺伝子１４２（表５）、ストレスタンパク質遺伝子９０（表６）、代謝系たんぱく質遺伝子１４２（表７）、脱毒性蛋白質遺伝子６０（表８）、その他のカテゴリーに属する遺伝子５０７（表９）のｍＲＮＡの発現が毒性を有する化学物質のいずれかにより誘導されることが示される。ここで、化学物質存在下における発現ｍＲＮＡ量／化学物質不存在下における発現ｍＲＮＡ量が２倍以上のものを有意とした。

　　表１～９の最右欄の「強度」はコントロール細胞における各遺伝子のｍＲＮＡ発現量を全遺伝子の発現量の平均値で割った値である。この値が非常に小さい場合、測定誤差が大きくなることが考えられる。また発現倍率（化学物質存在下の発現ｍＲＮＡ／不存在下の発現ｍＲＮＡ）はより大きいほうが判定がより的確になると考えられる。本発明の方法においては、強度が好ましくは０．３以上、より好ましくは０．５以上、発現倍率を好ましくは３以上、より好ましくは５以上の酵母遺伝子を選択する。

請　求　の　範　囲

1.　被検物質の存在下に、YBR072W、YCR102C、YCR107W、YDL218W、YDL243C、

YDR453C、YDR533C、YFL014W、YFL056C、YFL057C、YGR110W、YJR155W、YKL071W、

5　　　YKR076W、YLL060C、YLR460C、YMR090W、YNL331C、YNL332W、YNL335W、YOL150C、

YOL165C、YPL171C、YPR167C、YBL048W、YBL064C、YBL107C、YBR008C、YBR173C、

YBR256C、YBR296C、YDL021W、YFL022C、YFL024C、YFL061W、YGL121C、YGL158W、

YGR043C、YHR029C、YHR112C、YHR139C、YHR179W、YHR209W、YIR030C、YJR010W、

YJR048W、YKL001C、YKL107W、YKR075C、YKR097W、YLL056C、YLR297W、YLR303W、

10　　　YML087C、YMR096W、YNL274C、YOL151W、YOR226C、YOR338W、YOR391C、YPL280W、

YDR406W、YJL153C、YLR346C、YOR049C、YOR153W、YPL088W、YAL034C、YDL124W、

YDL174C、YDR476C、YGL156W、YGR035C、YGR157W、YGR213C、YGR281W、YGR284C、

YHL047C、YHR043C、YHR044C、YHR054C、YJR073C、YKL165C、YLR008C、YMR315W、

YNL211C、YOL031C、YOL101C、YOR303W、YAL005C、YAR031W、YBL005W-A、YBL022C、

15　　　YBL041W、YBL049W、YBL075C、YBL078C、YBR062C、YBR169C、YBR294W、YCL020W、

YCL035C、YCL043C、YCL050C、YCL057W、YCR012W、YCR013C、YCR060W、YDL007W、

YDL027C、YDL097C、YDL110C、YDL126C、YDL169C、YDR070C、YDR155C、YDR158W、

YDR204W、YDR210W、YDR214W、YDR258C、YDR313C、YDR368W、YDR435C、YER012W、

YER037W、YER091C、YER103W、YFL044C、YFR003C、YFR010W、YFR020W、YFR024C、

20　　　YFR044C、YFR053C、YGL006W、YGL048C、YGL062W、YGL141W、YGL157W、YGL163C、

YGL180W、YGL184C、YGR010W、YGR028W、YGR032W、YGR048W、YGR124W、YGR135W、

YGR142W、YGR161C、YGR192C、YGR197C、YGR201C、YGR212W、YGR231C、YGR244C、

YGR254W、YGR268C、YHL030W、YHR016C、YHR018C、YHR055C、YHR087W、YHR166C、

YIL160C、YIR017C、YJL034W、YJL048C、YJL052W、YJL144W、YJL163C、YJR009C、

25　　　YJR069C、YJR074W、YJR130C、YJR149W、YKL065C、YKL073W、YKL103C、YKL142W、

YKL210W、YKL218C、YKR011C、YKR018C、YKR046C、YKR049C、YLL024C、YLL026W、

YLR027C、YLR080W、YLR107W、YLR121C、YLR132C、YLR133W、YLR155C、YLR158C、

YLR161W、YLR195C、YLR217W、YLR328W、YLR336C、YLR345W、YLR370C、YLR423C、

YML004C、YML092C、YML128C、YML130C、YML131W、YMR040W、YMR118C、YMR214W、

YMR251W、 YMR297W、 YMR322C、 YNL036W、 YNL055C、 YNL071W、 YNL094W、 YNL134C、

YNL155W、 YNL160W、 YNL239W、 YNL241C、 YOL005C、 YOR020C、 YOR027W、 YOR037W、

YOR059C、 YOR120W、 YOR134W、 YOR152C、 YOR173W、 YOR289W、 YOR362C、 YPL240C、

YPR030W、 YAL008W、 YAL023C、 YAL060W、 YAL062W、 YAR009C、 YBL101C、 YBR006W、

5 YBR046C、 YBR052C、 YBR053C、 YBR056W、 YBR099C、 YBR137W、 YBR139W、 YBR149W、

YBR170C、 YBR177C、 YBR203W、 YBR207W、 YBR212W、 YBR239C、 YBR284W、 YBR293W、

YCL018W、 YCL033C、 YCL040W、 YCL049C、 YCR062W、 YCR067C、 YCR082W、 YDL010W、

YDL020C、 YDL024C、 YDL054C、 YDL095W、 YDL100C、 YDL115C、 YDL144C、 YDL198C、

YDL223C、 YDL245C、 YDL246C、 YDR001C、 YDR032C、 YDR058C、 YDR072C、 YDR127W、

10 YDR168W、 YDR169C、 YDR188W、 YDR231C、 YDR261C、 YDR264C、 YDR272W、 YDR293C、

YDR304C、 YDR330W、 YDR403W、 YDR411C、 YDR427W、 YDR436W、 YDR497C、 YDR511W、

YDR516C、 YDR519W、 YDR545W、 YEL012W、 YEL030W、 YER004W、 YER009W、 YER021W、

YER035W、 YER053C、 YER079W、 YER094C、 YER096W、 YER125W、 YER158C、 YER163C、

YER175C、 YER177W、 YER178W、 YER185W、 YFL006W、 YFL010C、 YFL016C、 YFL029C、

15 YFL030W、 YFL031W、 YFL032W、 YFL038C、 YFL041W、 YFR004W、 YFR047C、 YFR050C、

YFR052W、 YGL011C、 YGL013C、 YGL037C、 YGL047W、 YGL053W、 YGL091C、 YGL094C、

YGL127C、 YGL150C、 YGL199C、 YGL207W、 YGL248W、 YGR008C、 YGR037C、 YGR055W、

YGR101W、 YGR130C、 YGR154C、 YGR194C、 YGR221C、 YGR232W、 YGR248W、 YGR253C、

YGR256W、 YHL008C、 YHR027C、 YHR053C、 YHR057C、 YHR111W、 YHR138C、 YHR161C、

20 YHR164C、 YHR169W、 YHR174W、 YHR176W、 YHR199C、 YIL010W、 YIL034C、 YIL041W、

YIL045W、 YIL087C、 YIL107C、 YIL142W、 YIL155C、 YIR034C、 YIR036C、 YIR037W、

YIR038C、 YIR039C、 YJL001W、 YJL031C、 YJL035C、 YJL053W、 YJL057C、 YJL066C、

YJL068C、 YJL082W、 YJL099W、 YJL102W、 YJL151C、 YJL152W、 YJL161W、 YJL164C、

YJL171C、 YJL172W、 YJL210W、 YJL219W、 YJR008W、 YJR045C、 YJR046W、 YJR106W、

25 YJR117W、 YJR137C、 YKL007W、 YKL026C、 YKL035W、 YKL091C、 YKL104C、 YKL117W、

YKL145W、 YKL146W、 YKL151C、 YKL152C、 YKL153W、 YKL193C、 YKL195W、 YKL213C、

YKL215C、 YLL028W、 YLL039C、 YLL058W、 YLR054C、 YLR103C、 YLR120C、 YLR136C、

YLR149C、 YLR152C、 YLR178C、 YLR259C、 YLR299W、 YLR324W、 YLR327C、 YLR348C、

YLR350W、 YLR356W、 YLR362W、 YLR387C、 YLR429W、 YML054C、 YML070W、 YML100W、

YML117W、 YML125C、 YMR004W、 YMR008C、 YMR009W、 YMR020W、 YMR067C、 YMR089C、

YMR097C、 YMR102C、 YMR105C、 YMR107W、 YMR152W、 YMR180C、 YMR184W、 YMR191W、

YMR219W、 YMR271C、 YMR275C、 YMR295C、 YMR314W、 YMR316W、 YNL006W、 YNL007C、

YNL012W、 YNL044W、 YNL045W、 YNL074C、 YNL092W、 YNL093W、 YNL104C、 YNL115C、

YNL156C、 YNL231C、 YNL234W、 YNL237W、 YNL281W、 YNL305C、 YNL333W、 YNR010W、

YNR019W、 YNR033W、 YNR059W、 YNR068C、 YNR069C、 YOL032W、 YOL036W、 YOL047C、

YOL071W、 YOL082W、 YOL083W、 YOL117W、 YOL119C、 YOL126C、 YOL131W、 YOL153C、

YOL162W、 YOL163W、 YOL164W、 YOR019W、 YOR035C、 YOR036W、 YOR099W、 YOR117W、

YOR124C、 YOR130C、 YOR132W、 YOR157C、 YOR185C、 YOR197W、 YOR259C、 YOR261C、

YOR273C、 YOR288C、 YOR332W、 YOR336W、 YOR347C、 YPL017C、 YPL087W、 YPL106C、

YPL109C、 YPL149W、 YPL154C、 YPL196W、 YPL206C、 YPL222W、 YPR023C、 YPR024W、

YPR026W、 YPR067W、 YPR103W、 YPR108W、 YPR151C、 YAL012W、 YBR029C、 YBR222C、

YCL009C、 YCL027W、 YCL064C、 YCR098C、 YDL222C、 YDR055W、 YDR077W、 YDR502C、

YEL001C、 YEL042W、 YER026C、 YER106W、 YGR136W、 YGR138C、 YHR137W、 YHR142W、

YIL023C、 YIL153W、 YJL073W、 YJR004C、 YJR054W、 YKL039W、 YKL086W、 YKL163W、

YKR091W、 YLR109W、 YLR194C、 YLR250W、 YMR095C、 YMR189W、 YNL106C、 YNL169C、

YNL322C、 YOR181W、 YOR198C、 YOR208W、 YOR247W、 YPL089C、 YAL038W、 YAL053W、

YBR023C、 YBR214W、 YBR295W、 YCR048W、 YDL072C、 YDL204W、 YDR085C、 YDR098C、

YDR259C、 YDR380W、 YDR388W、 YDR391C、 YDR432W、 YDR481C、 YDR510W、 YER069W、

YGL022W、 YGL126W、 YGL209W、 YGL255W、 YGR189C、 YGR282C、 YHL035C、 YHR030C、

YIL022W、 YIL024C、 YIL117C、 YIL123W、 YIL140W、 YIL154C、 YJL088W、 YJL108C、

YJL149W、 YJL159W、 YJL186W、 YJR148W、 YKL096W、 YLR180W、 YLR273C、 YLR300W、

YLR307W、 YLR378C、 YLR391W、 YMR094W、 YMR104C、 YMR276W、 YMR296C、 YNL190W、

YNL208W、 YNL300W、 YNR064C、 YOL013C、 YOL058W、 YOR248W、 YOR355W、 YPL052W、

YPL163C、 YPR079W、 YAR028W、 YBR146W、 YBR183W、 YCL038C、 YCR071C、 YDL008W、

YDR019C、 YDR031W、 YDR115W、 YDR486C、 YER038C、 YER130C、 YFL054C、 YGL136C、

YGR146C、 YGR207C、 YHL040C、 YIL167W、 YJL020C、 YKR039W、 YLR031W、 YLR205C、

YMR072W、 YMR140W、 YMR173W、 YMR195W、 YMR226C、 YNL037C、 YNR002C、 YOL143C、

YOR136W、 YOR215C、 YOR382W、 YOR383C、 YPL054W、 YPL271W、 YPR127W、 YAL044C、

YAL054C、 YAR010C、 YAR027W、 YAR071W、 YBL001C、 YBL043W、 YBL057C、 YBR014C、

YBR024W、 YBR035C、 YBR068C、 YBR111C、 YBR116C、 YBR147W、 YBR168W、 YBR246W、

YBR273C、 YCR004C、 YCR021C、 YCR037C、 YCR088W、 YDL022W、 YDL128W、 YDL238C、

YDR003W、 YDR009W、 YDR033W、 YDR084C、 YDR104C、 YDR270W、 YDR315C、 YDR340W、

5   YDR357C、 YDR358W、 YDR396W、 YDR405W、 YDR410C、 YDR434W、 YDR482C、 YDR487C、

YDR520C、 YDR534C、 YDR539W、 YEL011W、 YEL065W、 YEL066W、 YER039C、 YER044C、

YER067W、 YER080W、 YER107C、 YFL020C、 YFL028C、 YFL043C、 YFR015C、 YGL001C、

YGL008C、 YGL068W、 YGL073W、 YGL104C、 YGL113W、 YGL154C、 YGL167C、 YGL229C、

YGL242C、 YGL249W、 YGL253W、 YGR052W、 YGR060W、 YGR065C、 YGR106C、 YGR111W、

10 YGR220C、 YGR257C、 YHL023C、 YHL048W、 YHR004C、 YHR037W、 YHR071W、 YHR092C、

YHR190W、 YIL007C、 YIL033C、 YIL070C、 YIL088C、 YIL111W、 YIR002C、 YIR016W、

YIR035C、 YIR043C、 YJL012C、 YJL083W、 YJL089W、 YJL116C、 YJL131C、 YJL132W、

YJL196C、 YJR061W、 YJR086W、 YJR142W、 YJR161C、 YKL008C、 YKL013C、 YKL041W、

YKL067W、 YKL138C、 YKL139W、 YKL150W、 YKL175W、 YKR006C、 YKR014C、 YKR070W、

15 YLL023C、 YLR023C、 YLR093C、 YLR118C、 YLR142W、 YLR225C、 YLR241W、 YLR251W、

YLR252W、 YLR270W、 YML030W、 YML110C、 YMR021C、 YMR027W、 YMR148W、 YMR181C、

YMR262W、 YMR272C、 YMR298W、 YNL011C、 YNL130C、 YNL214W、 YNL259C、 YOL129W、

YOR042W、 YOR052C、 YOR137C、 YOR149C、 YOR165W、 YOR270C、 YOR285W、 YOR367W、

YPL018W、 YPL156C、 YPL186C、 YPL203W、 YPL216W、 YPL255W、 YPR006C、 YPR073C、

20 YPR098C、 YBR050C、 YBR145W、 YBR299W、 YDR518W、 YEL020C、 YFL062W、 YGL039W、

YGL134W、 YJL217W、 YJR159W、 YLR126C、 YNL249C、 YNL284C、 YNL336W、 YOL157C、

YOR344C、 YOR381W、 YPL265W、 YPR124W、 YBR074W、 YBR109C、 YBR126C、 YBR201W、

YCR005C、 YDL248W、 YDR041W、 YDR105C、 YDR268W、 YDR452W、 YEL075C、 YER046W、

YER050C、 YER136W、 YER159C、 YGL250W、 YGR019W、 YGR042W、 YGR053C、 YGR066C、

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102

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YOR363C、YPL039W、YPL040C、YPL099C、YPL107W、YPL134C、YPL138C、及び

YPL140Cよりなる群から選択される酵母遺伝子、並びにこれら酵母遺伝子に相同

性の他種由来の遺伝子よりなる群から選択される遺伝子を含む細胞から発現され

る該遺伝子に対応するmRNAを検出することを特徴とする毒性物質の検出方法。

２．　酵母遺伝子が、機能未知の酵母遺伝子である請求の範囲第１項記載の方法。

３．　酵母遺伝子が、ミトコンドリアタンパク質遺伝子である請求の範囲第１項記載の方法。

４．　酵母遺伝子が、遺伝子修復系タンパク質遺伝子である請求の範囲第１項記載の方法。

５．　酵母遺伝子が、エネルギー系タンパク質遺伝子である請求の範囲第１項記載の方法。

６．　酵母遺伝子が、トランスポート促進タンパク質遺伝子である請求の範囲第１項記載の方法。

７．　酵母遺伝子が、ストレスタンパク質遺伝子である請求の範囲第１項記載の方法。

８．　酵母遺伝子が、代謝系タンパク質遺伝子である請求の範囲第１項記載の方法。

９．　酵母遺伝子が、脱毒性タンパク質遺伝子である請求の範囲第１項記載の方法。

１０．　毒性物質が変異原性である請求の範囲第１～９項のいずれかに記載の方法。

１１．　mRNAの検出を逆転写ＰＣＲ法によって増幅させて行なう請求の範囲第１～１０項のいずれかに記載の方法。

１２．　（１）細胞に被験物質を添加して培養を行ない、

（２）細胞からmRNAを抽出し、

（３）標識したヌクレオチドを用いてmRNAを逆転写してｃＤＮＡを得、

（４）該ｃＤＮＡをプローブとして用いて請求の範囲第１項に記載の遺伝子とハイブリダイズさせること、

を含む請求の範囲第１１項に記載の方法。

１３．　請求の範囲第１項に記載の遺伝子のマイクロアレイを用いて請求の範囲第１２項の（４）の工程を行なう請求の範囲第１２項に記載の方法。

１４．　mRNAの検出をノーザンブロット法を用いて行なう請求の範囲第１～

１０項のいずれかに記載の方法。

１５．　　（１）細胞に被験物質を添加して培養を行ない、

（２）細胞からｍＲＮＡを抽出し、

（３）該ｍＲＮＡを請求の範囲第１項に記載の遺伝子とハイブリダイズさせるこ

と、

を含む請求の範囲第１４項に記載の方法。

１６．　　請求の範囲第１項に記載の遺伝子のマイクロアレイを用いて請求の範囲第１５項の（３）の工程を行なう請求の範囲第１５項に記載の方法。

１７．　　ｍＲＮＡの生成の確認を請求の範囲第１項に記載の遺伝子によりコードされるポリペプチドの生成の確認によって行なう請求の範囲第１～１０項のいずれかに記載の方法。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP02/08494

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ C12N15/00, C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
    Int.Cl⁷ C12N15/00, C12Q1/68

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
    CAPLUS/MEDLINE/BIOSIS/WPIDS(STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E,X	JP 2001-286281 A (Director General of National Institute of Advanced Industrial Science and Technology), 16 October, 2001 (16.10.01), Full text (Family: none)	1-17
Y	FUJITA, K. et al., "Hsp104 expression and morphological changes associated with disinfectants in Saccharomyces cerevisiae: Environmental bioassay using stress response", Water Science and Technology, 1998, Vol.38, No.7, pages 237 to 243, abstract	1-17

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance		
"E"	earlier document but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 November, 2002 (26.11.02)	10 December, 2002 (10.12.02)

Name and mailing address of the ISA/	Authorized officer
Japanese Patent Office	
Facsimile No.	Telephone No.

Form PCT/ISA/210 (second sheet) (July 1998)

C (Continuation).   DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MIURA, S. et al., "Screening of genes involved in isooctane tolerance in Saccharomyces cerevisiae by using mRNA differential display", Applied and Environmental Microbiology, 2000, Vol.66, No.11, pages 4883 to 4889, abstract	1-17
Y	Parry, J.M., "The use of yeast cultures for the detection of environmental mutagens using a fluctuation test", Mutation Research, 1977, Vol.46, No.3, pages 165 to 175, abstract	1-17
Y	Prein, B. et al., "A novel strategy for constructing N-terminal chromosomal fusions to green fluorescent protein in the yeast Saccharomyces cerevisiae", FEBS Letters, 2000, Vol.485, No.1, pages 29 to 34, abstract, Materials and Methods	1-17
Y	WO 00/58520 A1 (Rosetta Inpharmatics Inc.), 05 October, 2000 (05.10.00), Claims; pages 100 to 102; table 1 & AU 2000039313 A	1-17
Y	Casalone, E. et al., "Disruption and phenotypic analysis of six novel genes from chromosome IV of Saccharomyces cerevisiae revieal YDL060w as an essential gene for vegetative growth", Yeast, 1999, Vol.15, No.15, pages 1691 to 1701, abstract; table 1	1-17
Y	Belli, G. et al., "Functional analysis of yeast essential genes using a promoter-substitution cassette and the tetracycline-regulatable dual expression system", Yeast, 1998, Vol.14, No.12, pages 1127 to 1138, abstract; table 3	1-17
Y	Huang, M.E., "Disruption of six novel yeast genes reveals three genes essential for vegetative growth and one required for growth at low temperature", Yeast, 1997, Vol.13, No.12, pages 1181 to 1194, abstract; table 2	1-17
Y	Sartori, G. et al., "Inactivation of six genes from chromosomes VII and XIV of Saccharomyces cerevisiae and basic phenotypic analysis of the mutant strains", Yeast, 2000, Vol.16, No.3, pages 255 to 265, abstract; table 1	1-17
Y	Alberts, B. et al., "Essential Cell Biology", New York: Garland Publishing, Inc., 1998, page 323, Fig. 10-9	1-10,14
Y	Lashkari, D.A. et al., "Yeast microarrays for genome wide parallel genetic and gene expression analysis", Proc.Natl.Acad.Sci.USA, 1997, Vol.94, pages 13057 to 13062, abstract; table 1	1-13,15-17

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP02/08494

Box I   Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II   Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
(See extra sheet.)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: Parts of claims 1 to 17

Remark on Protest   ☐   The additional search fees were accompanied by the applicant's protest.

☐   No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (1)) (July 1998)

Continuation of Box No.II of continuation of first sheet(1)

Requirement of unity of invention in international application (PCT Rule 13.1) is not fulfilled unless there is a technical relationship in a group of claimed inventions involving one or more of the same or corresponding special technical features. The expression "special technical feature" means a technical feature that defines a contribution which each of the claimed inventions, considered as a whole, makes over the prior art (PCT Rule 13.2). The determination of unity of invention is made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claims (PCT Rule 13.3).

Concerning the claims in the present case, it is considered that, among methods of detecting toxic substances, there had been publicly known several methods with the use of genes characterized in that mRNA corresponding any of the 2053 genes described in claim 1 is detected (for example, WO 00/58520 A1 (ROSETTA INPHARMATICS, INC), 2000.10.05 discloses a method of detecting a compound affecting the ergosterol pathway by detecting a gene such as YPL727C or YGR131W).
Thus, it can be said that there is no "special technical feature" common to the inventions relating to the respective methods with the use of the genes as set forth in the above claims.

Such being the case, the claims involve 2053 inventions, which are different from each other, corresponding respectively to the methods based on the expression of the 2053 genes.

A.	発明の属する分野の分類（国際特許分類（IPC））

Int．Cl⁷　C12N15／00，C12Q1／68

B.　調査を行った分野

調査を行った最小限資料（国際特許分類（IPC））
Int．Cl⁷　C12N15／00，C12Q1／68

最小限資料以外の資料で調査を行った分野に含まれるもの

国際調査で使用した電子データベース（データベースの名称、調査に使用した用語）

CAPLUS／MEDLINE／BIOSIS／WPIDS（STN）

C.　関連すると認められる文献

引用文献の カテゴリー*	引用文献名　及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
EX	JP 2001-286281 A（経済産業省産業技術総合研究所長）， 2001.10.16　（ファミリーなし）全文参照	1-17
Y	Fujita, K., et al., "Hsp104 expression and morphological changes associated with disinfectants in Saccharomyces cerevisiae: Environmental bioassay using stress response" Water Science and Technology, 1998, Vol. 38, No. 7, pp. 237-243, 要約参照	1-17

☑　C欄の続きにも文献が列挙されている。　　　　　□　パテントファミリーに関する別紙を参照。

*　引用文献のカテゴリー
「A」特に関連のある文献ではなく、一般的技術水準を示す
　　もの
「E」国際出願日前の出願または特許であるが、国際出願日
　　以後に公表されたもの
「L」優先権主張に疑義を提起する文献又は他の文献の発行
　　日若しくは他の特別な理由を確立するために引用する
　　文献（理由を付す）
「O」口頭による開示、使用、展示等に言及する文献
「P」国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献
「T」国際出願日又は優先日後に公表された文献であって
　　出願と矛盾するものではなく、発明の原理又は理論
　　の理解のために引用するもの
「X」特に関連のある文献であって、当該文献のみで発明
　　の新規性又は進歩性がないと考えられるもの
「Y」特に関連のある文献であって、当該文献と他の1以
　　上の文献との、当業者にとって自明である組合せに
　　よって進歩性がないと考えられるもの
「＆」同一パテントファミリー文献

国際調査を完了した日　　　26．11．02	国際調査報告の発送日　　10.12.02
国際調査機関の名称及びあて先 　日本国特許庁（ISA／JP） 　郵便番号100−8915 　東京都千代田区霞が関三丁目4番3号	特許庁審査官（権限のある職員）　　　4B　9639 　新留　豊 電話番号　03−3581−1101　内線　3448

様式PCT／ISA／210（第2ページ）（1998年7月）

C（続き）.	関連すると認められる文献	
引用文献の カテゴリー＊	引用文献名　及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
Y	Miura, S., et al.,"Screening of genes involved in isooctane tolerance in Saccharomyces cerevisiae by using mRNA differential display" Applied and Environmental Micriobiology, 2000, Vol.66, No.11, pp.4883-4889, 要約参照	1-17
Y	Parry, J.M., "The use of yeast cultures for the detection of environmental mutagens using a fluctuation test" Mutation Research, 1977, Vol.46, No.3, pp.165-175, 要約参照	1-17
Y	Prein, B., et al.,"A novel strategy for constructing N-terminal chromosomal fusions to green fluorescent protein in the yeast Saccharomyces cerevisiae" FEBS Letters, 2000, Vol.485, No.1, pp.29-34, 要約及びMaterials and Methods参照	1-17
Y	WO 00/58520 A1 (ROSETTA INPHARMATICS INC.), 2000.10.05, 請求の範囲, pp.100-102のTable 1参照 & AU 2000039313 A	1-17
Y	Casalone, E., et al., "Disruption and phenotypic analysis of six novel genes from chromosome IV of Saccharomyces cerevisiae reveal YDL060w as an essential gene for vegetative growth" Yeast, 1999, Vol.15, No.15, pp.1691-1701, 要約及びTable 1参照	1-17
Y	Belli, G., et al., "Functional analysis of yeast essential genes using a promoter-substitution cassette and the tetracycline-regulatable dual expression system" Yeast, 1998, Vol.14, No.12, pp.1127-1138, 要約及びTable 3参照	1-17
Y	Huang, M.E., "Disruption of six novel yeast genes reveals three genes essential for vegetative growth and one required for growth at low temperature" Yeast, 1997, Vol.13, No.12, pp.1181-1194, 要約及びTable 2参照	1-17
Y	Sartori, G., et al.,"Inactivation of six genes from chromosomes VII and XIV of Saccharomyces cerevisiae and basic phenotypic analysis of the mutant strains" Yeast, 2000, Vol.16, No.3, pp.255-265, 要約及びTable 1参照	1-17
Y	Alberts, B., et al., "Essential Cell Biology" New York: Garland Publishing, Inc., 1998, p.323, Fig.10-9参照	1-10, 14
Y	Lashkari, D.A., et al., "Yeast microarrays for genome wide parallel genetic and gene expression analysis" Proc. Natl. Acad. Sci. USA, 1997, Vol.94, pp.13057-13062, 要約及びTable 1参照	1-13, 15-17

| 第Ⅰ欄 | 請求の範囲の一部の調査ができないときの意見（第1ページの2の続き） |

法第８条第３項（ＰＣＴ１７条(2)(a)）の規定により、この国際調査報告は次の理由により請求の範囲の一部について作成しなかった。

1. ☐ 請求の範囲 ＿＿＿＿＿＿＿＿＿＿＿は、この国際調査機関が調査をすることを要しない対象に係るものである。
つまり、

2. ☐ 請求の範囲 ＿＿＿＿＿＿＿＿＿＿＿は、有意義な国際調査をすることができる程度まで所定の要件を満たしていない国際出願の部分に係るものである。つまり、

3. ☐ 請求の範囲 ＿＿＿＿＿＿＿＿＿＿＿は、従属請求の範囲であってＰＣＴ規則6.4(a)の第２文及び第３文の規定に従って記載されていない。

| 第Ⅱ欄 | 発明の単一性が欠如しているときの意見（第1ページの3の続き） |

次に述べるようにこの国際出願に二以上の発明があるとこの国際調査機関は認めた。

　　　（別紙参照）

1. ☐ 出願人が必要な追加調査手数料をすべて期間内に納付したので、この国際調査報告は、すべての調査可能な請求の範囲について作成した。

2. ☐ 追加調査手数料を要求するまでもなく、すべての調査可能な請求の範囲について調査することができたので、追加調査手数料の納付を求めなかった。

3. ☐ 出願人が必要な追加調査手数料を一部のみしか期間内に納付しなかったので、この国際調査報告は、手数料の納付のあった次の請求の範囲のみについて作成した。

4. ☑ 出願人が必要な追加調査手数料を期間内に納付しなかったので、この国際調査報告は、請求の範囲の最初に記載されている発明に係る次の請求の範囲について作成した。

　　　請求の範囲１－１７の一部

追加調査手数料の異議の申立てに関する注意
　　　☐ 追加調査手数料の納付と共に出願人から異議申立てがあった。
　　　☐ 追加調査手数料の納付と共に出願人から異議申立てがなかった。

（第Ⅱ欄の別紙）

　　国際出願における発明の単一性の要件（ＰＣＴ規則１３．１）は、請求の範囲に記載された一群の発明の間に一又は二以上の同一または対応する特別な技術的特徴を含む技術的関係があるときに限り、満たされるものであって、この「特別な技術的特徴」とは、請求の範囲に記載された各発明が全体として先行技術に対して行う貢献を明示する技術的特徴のことである（ＰＣＴ規則１３．２）。また、発明の単一性の要件の判断は、一群の発明が別個の請求の範囲に記載されているか単一の請求の範囲に択一的な形式によって記載されているかを考慮することなく行われる（ＰＣＴ規則１３．３）。

　　ここで、請求の範囲をみると、請求の範囲１に記載された２０５３個の酵母遺伝子のいずれかに対応するｍＲＮＡを検出することを特徴とする、毒性物質の検出方法のうち、いくつかの遺伝子を用いた方法が既に公知であると認められる（例えば文献 WO 00/58520 A1（ROSETTA INPHARMATICS, INC），2000.10.05 には YPL272Cあるいは YGR131W等の遺伝子の発現を検出することにより、該細胞のエルゴステロール経路に影響を与える化合物を検出する方法が記載されている）。
　　したがって、請求の範囲に示された各遺伝子を用いたそれぞれの方法について、関連した発明に共通する「特別な技術的特徴」は存在しないと言える。

　　よって、請求の範囲には、２０５３個の各遺伝子の発現に基づいた検出方法のそれぞれに対応した、別異の２０５３個の発明が包含されている。